BULLETIN OF THE AMERICAN ACADEMY OF AUDIOLOGY

Audiology Today

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(AP/World Wide Photo)

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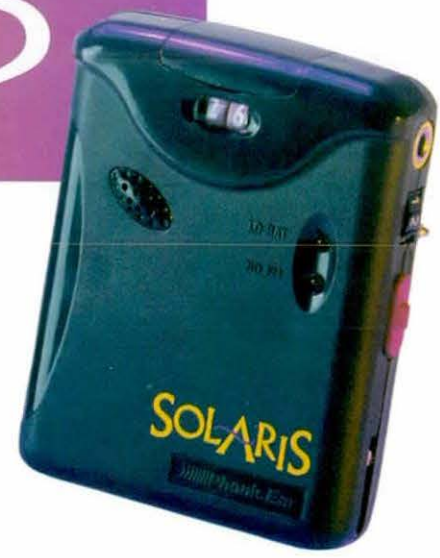

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November/December 1997 Volume 9, Number 6

Audiology Today

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Audiology Today accepts contributed manuscripts dealing with the wide variety of topics of interest to audiologists including clinical activities and hearing research, current events, news items, professional issues, individual-institution-organization announcements, entries for the calendar of events and materials from other areas within the scope of practice of audiology. *Audiology Today* welcomes feature articles, essays of professional opinion, special reports and letters to the editor. Submissions may be subject to editorial review and alteration for clarity and brevity. Closing date for all copy is the 1st day of the month preceding issue date.

All copy received by *Audiology Today* must be accompanied by a 3.5"computer disk clearly identified by author name, topic title, operating system, and word processing program (preferably WordPerfect or Microsoft Word). Submitted material will not necessarily be returned. Specific questions regarding *Audiology Today* should be addressed to Editor, *Audiology Today*, 2681 E. Cedar Avenue, Denver, CO 80209.

Northern Lites

HA Dealers Copy AFA Entitlement Program (DAudP)

The plan to differentiate professional audiologists from other hearing healthcare providers through the use of the title "doctor," hit a snag with the announcement of a new entitlement program to award hearing aid dealers their own "doctor" title. The use of portfolio review and professional experience to attain the title of "doctor" raises new questions and doubts about entitled credentials. State licensure boards should be concerned about the proliferation and illegality of entitled doctors and the ensuing confusion presented to the hearing-impaired consumer.

The North American Institute of Auditory Prosthetics (NAIAP), a 501.3 non-profit, non-member organization based in California, announced an entitlement program to award licensed hearing aid dealers titles of Master of Auditory Prosthetics (MAudP) and Doctor of Auditory Prosthetics (DAudP). Applicants must have an earned baccalaureate degree, undergo a thorough portfolio review, show documented work experience, and include a non-refundable check. The DAudP requires 10 years of experience and costs $1490, while the MAudP may be obtained with only 5 years' experience and a check for $890. The NAIAP warns that use of the DAudP and the MAudP may be "limited or restricted" by legislative regulations.

The NAIAP claims credibility by referencing the "contemporaneous process" of the Audiology Foundation of America (AFA) to recredential audiologists. NAIAP charges that the AFA's AuD credential"...was intentionally developed to create the impression of 'one class' of hearing health professionals, indistinguishable in academic achievement and professional competency." The NAIAP portfolio review is, in their words, "...uncompromisingly rigorous and extensive...the minimum conditions for candidate eligibility are considerably more demanding...and the NAIAP credential evaluation process is both more rigorous and comprehensive than the AFA model." The naïve outside observer, who reads the NAIAP prospectus, and then learns that the AFA AuD costs only $750, might conclude that the hearing aid dealers must have a "better" entitlement plan. And, further, the DAudP credential does not mimic an academic degree from an accredited institution.

No issue has created such divisiveness and polarization among audiologists as the AuD entitlement campaign. Although both sides cite the need for unification, neither side shows any tolerance for the viewpoint of the opposition. I am especially chagrined that the NAIAP document cites quotations from the Board of Directors of the Academy of Dispensing Audiologists, as well as statements from the mass letter sent out by the Board of Audiologic Resource Association, in which audiologists impugn and malign their own graduate academic and clinical preparation as justification for the AuD entitlement program. This is clearly a case where our own derogatory public statements have come back around to bite us.

Now the entitlement "doctoral" door has been opened to the hearing aid dealers. How can we complain? The hearing aid dealers are doing nothing more than copying the blueprint developed and heralded by the AFA. The NAIAP document states that audiologists have "deliberately exaggerated the content and character of their graduate education...when proclaiming unfounded academic superiority, training and education." You may be sure that as pro-EE forces organize to petition for changes in state licensure laws to permit the use of the entitled AuD, commercial hearing aid dealers will seize this window of opportunity for recognition of their own "doctoral" credential. The shame of all of this is that we have wasted so much time fighting among ourselves over entitlement—an issue already declared illegal in nearly every state. Certainly, we could have accomplished more by working together toward our common cause, "Caring for America's Hearing."

—*Jerry L. Northern*, Editor

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NATIONAL OFFICE

American Academy of Audiology
8201 Greensboro Drive, Suite 300
McLean, VA 22102
(703) 610-9022 (800) AAA-2336
FAX (703) 610-9005

Bruce Wardle, Executive Director
ext. 214 • jbw@amg-inc.com

Phyllis Call, Associate Director
ext. 211 • pac@audiology.org

Lisa Cebulash, Director of Membership
ext. 240 • lac@audiology.org

Joan Taylor, Director of Communications & Membership
ext. 210 • jht@audiology.org

Zane Kerby, Director of Education
ext. 213 • zbk@audiology.org

The American Academy of Audiology is a professional organization of individuals dedicated to providing quality hearing care to the public. We enhance the ability of our members to achieve career and practice objectives through professional development, education, research, and increased public awareness of hearing disorders and audiologic services.

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PRESIDENT'S MESSAGE

THE POWER OF THE PRESS

Deborah Hayes

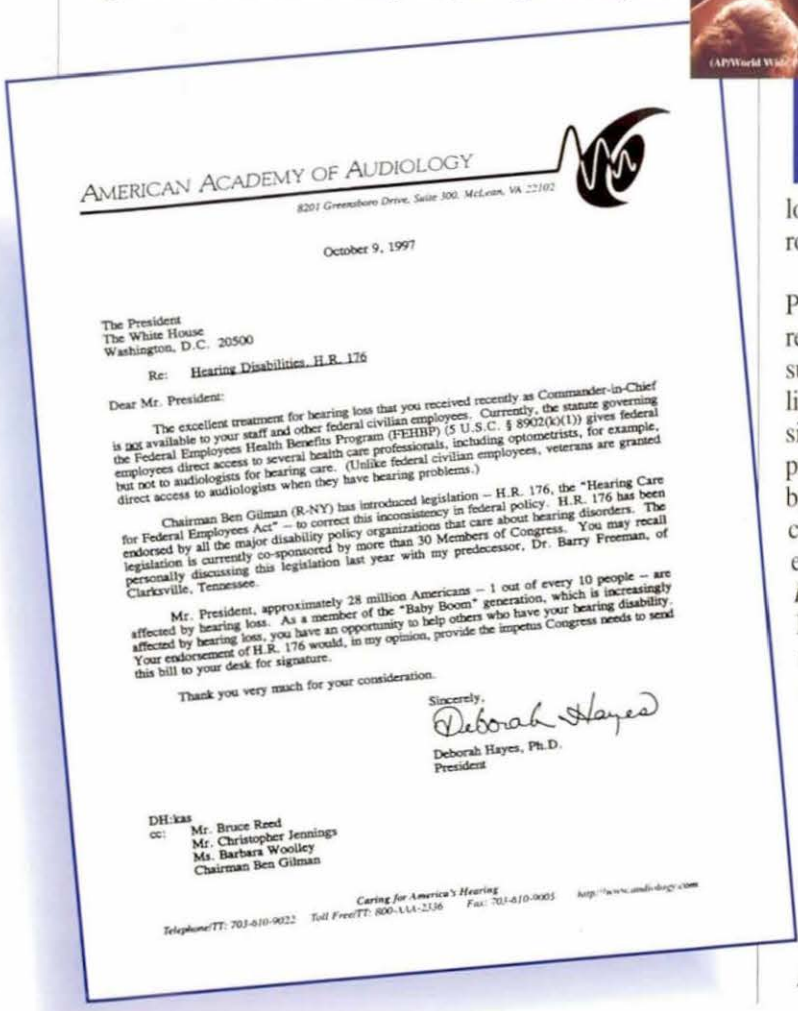
On Friday afternoon, October 3rd, the results of President Clinton's annual, six-hour physical at Bethesda Naval Hospital were disclosed. Doctors pronounced Mr. Clinton in excellent condition, reporting that he had lost weight and reduced his cholesterol level to well within the normal range. The only finding on Mr. Clinton's otherwise normal health checkup was significant high-frequency hearing loss. The President has been aware of his hearing loss for years, indicating to former AAA President Barry Freeman that he (Clinton) could use the services of an audiologist during their face-to-face meeting one year ago. During this year's physical, Mr. Clinton received those services; he was fit with binaural, completely-in-the canal, hearing aids.

More than a decade ago, the news of President Ronald Reagen's hearing aid fitting sparked increased interest in the benefits of amplification for thousands of non-users. Mr. Clinton's fitting promises a potentially greater response. Mr. Clinton is our first baby boomer president, a man barely into his sixth decade of life. By seeking help for his hearing loss, Mr. Clinton showed that hearing loss can occur, and be effectively treated, in persons at any age. According to press reports, the President's hearing loss resulted from decades of exposure to marching bands, rock-and-roll music, and campaign rallies.

President Clinton strains to hear supporters as he works the crowd at the end of a campaign rally in Cedar Rapids, Iowa, in this Nov. 4, 1996 file photo. A longtime hearing problem prompted doctors to fit President Clinton with hearing aids Friday, Oct. 3, 1997.

AAA quickly responded to the announcement of the President's hearing aid fitting. Within hours of the first press release, AAA Web Editor Roy Sullivan had written a consumer-oriented lead, produced color graphics, and posted online links on all major internet news services on the AAA website (www.audiology.org). The AAA National Office issued press releases and public statements for distribution to print and broadcast media which attracted the attention of Sandra Evans, correspondent for the *Washington Post*. In developing an extended article about hearing loss and the hearing aids for the *Post*, Evans interviewed and extensively quoted AAA Past President Barry Freeman. Numerous audiologists throughout the country also provided articles and follow-up stories for their local press. We even wrote to President Clinton encouraging him to support H.R. 176, the Hearing Care for Federal Employees Act. Mr. Clinton's endorsement of H.R. 176 could positively influence passage of this bill and result in direct access to audiologists and audiology services for thousands of federal employees.

A media event is a fleeting opportunity. Perhaps the lasting outcome of this one will be higher visibility of the profession of audiology and better hearing for thousands of Americans with previously untreated hearing loss.



AMERICAN ACADEMY OF AUDIOLOGY
8201 Greensboro Drive, Suite 300, McLean, VA 22102

October 9, 1997

The President
The White House
Washington, D.C. 20500

Re: Hearing Disabilities, H.R. 176

Dear Mr. President:

The excellent treatment for hearing loss that you received recently as Commander-in-Chief is not available to your staff and other federal civilian employees. Currently, the statute governing the Federal Employees Health Benefits Program (FEHBP) (5 U.S.C. § 8902(k)(1)) gives federal employees direct access to several health care professionals, including optometrists, for example, but not to audiologists for hearing care. (Unlike federal civilian employees, veterans are granted direct access to audiologists when they have hearing problems.)

Chairman Ben Gilman (R-NY) has introduced legislation – H.R. 176, the "Hearing Care for Federal Employees Act" – to correct this inconsistency in federal policy. H.R. 176 has been endorsed by all the major disability policy organizations that care about hearing disorders. The legislation is currently co-sponsored by more than 30 Members of Congress. You may recall personally discussing this legislation last year with my predecessor, Dr. Barry Freeman, of Clarksville, Tennessee.

Mr. President, approximately 28 million Americans – 1 out of every 10 people – are affected by hearing loss. As a member of the "Baby Boom" generation, which is increasingly affected by hearing loss, you have an opportunity to help others who have your hearing disability. Your endorsement of H.R. 176 would, in my opinion, provide the impetus Congress needs to send this bill to your desk for signature.

Thank you very much for your consideration.

Sincerely,

Deborah Hayes

Deborah Hayes, Ph.D.
President

DH:kas
cc: Mr. Bruce Reed
Mr. Christopher Jennings
Ms. Barbara Woolley
Chairman Ben Gilman

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Newsweek

OUR EMBATTLED EARS

Kathy Peck, a musician, never thought much about her ears. Sure, she relied on them every day as a bass player and singer/songwriter in an all-girl punk band. But it took five years of thunderous rehearsals and concerts before Peck realized that her ears had been damaged—permanently—by noise. Frank Goral, a Marine Corps naval flight officer, didn't think much about his ears, either—despite exposing them to the screaming roar of jet engines five days a week for a decade and a half. But the day Colonel Goral left the skies for quieter office work, he discovered that his ears weren't up to the job. "I found I was bumping guys on the left and the right and asking them, 'What did that gentleman just say?'" he says.

Hearing loss once seemed a normal part of aging, but experts now agree that much of it is preventable.

Conventional wisdom would have us believe that hearing loss is as inevitable as gray hair and age spots. But research has shown that excessive noise exposure is one of the leading causes of ear damage. "About 75 percent of hearing loss in the typical American is caused not by the aging process alone," says William Clark, a senior scientist at the Central Institute for the Deaf in St. Louis, "but by what you've done to your ears throughout your lifetime." While few of us will ever endure the long-term beatings of a punker or a pilot, we are all in danger of permanently injuring our hearing without even realizing it. More than 20 million of us are exposed on a regular basis to noxious noise levels—and the effects are beginning to show. "We're seeing evidence of an increase in hearing loss at younger ages," says Laurie Hanin, director of audiology at the League for the Hard of Hearing in New York City. "We believe it's due to an increase in noise in the environment."

Noise damages our ears in two ways. It can strike in an instant, causing what is known as acoustic trauma. One blast from a high-powered hunter's rifle can rip apart the ear's inner tissues, leaving scars that permanently dampen hearing. It can also develop insidiously over a period of decades in what is called noise-induced hearing loss, or NIHL. Dangerous noise levels attack the inner ear's 16,000 hair cells, the tiny workhorses that transport airborne vibrations to our brain, where they're decoded as speech or screech or—spare us all—the wail of a car alarm. Those hair cells do spectacular work, but they're incapable of regeneration. By the time we get the signal that something is wrong—a ringing in the ears, a muffling of sounds—some of the cells may have died. "Your ear doesn't bleed after a rock concert or a shot of fireworks," says Clark. "That's why noise is a bigger hazard than it seems."

Consider the decibel (dB) count a temperature reading for the ear, with 85 dB marking the fever point for safe, unlimited exposure. Washing machines and vacuum cleaners (both less than 85 dB) aren't likely to cause harm—even if you listen to them every waking hour. But as dB levels rise to 85 and beyond, our ears enter a danger zone that worsens with length of exposure. Your ear can safely handle two hours with a power drill (100 dB), but not more than 30 minutes in a noisy video arcade (110 dB). Every 10-decibel increase on the sound scale represents 10 times more ear-battering noise. It will come as no great shock to parents that a screaming child (90 dB) rings in louder than a typical alarm clock (80 dB). And few commuters will be surprised to learn that a subway platform (at 100 dB) is considerably noisier than a busy city sidewalk (80 dB).

City folk have long complained about noise; New Yorkers ranked it the No. 1 problem at the turn of the century and still do today. But even the suburbs are no longer quiet escapes from aural mayhem. They've become open-air stages for the 1990's din of leafblowers and "boom cars," those rock concerts on wheels. "People are finding they're no longer able to run away from it," says Les Blomberg, head of the Noise Pollution Clearinghouse in Montpelier, Vt. Even picturesque Vermont has acoustical battles to fight. The latest menace is a 100 dB street sweeper—Blomberg measured the noise level himself—that rumbles through Montpelier at 4 a.m.

No matter where you live, there are practical steps you can take to protect your ears. For roughly the cost of bus fare, anyone can buy a pair of drugstore earplugs. Their noise reduction levels (ranging from about 20 dB to 30 dB) and styles (foam, silicone and wax) aren't all that important. What matters is that you wear them whenever you're in a noisy environment. Just don't resort to cotton—it won't stop sound waves from attacking your ears. When you're not sure whether to bother with the plugs, take a simple noise test: if you're three feet away from someone and have to raise your voice to be heard, it's time to put them in. Try

REPRINT **Newsweek**

giving your ears a rest, too. After several hours in a boisterous baseball stadium, it's wise to wait a day before heading to a rock club. And don't forget about the kids. Toy rattles can hit 110 dB, and children's electric guitars reach even higher.

Though you can't repair a noise-damaged ear, treatment options for the hearing impaired are improving markedly. Conventional hearing aids have never been all that popular: only about 20 percent of the 28 million Americans with hearing loss wear them. Most people can't put up with the pumped-up volume of background chatter, and no one likes having to adjust the volume when moving from one room to another. But a new generation of fully digital hearing aids, which cost about $3,000, now offer more sophisticated alternatives. Their tiny computer chips filter sound into bands, matching them against a patient's personal hearing-loss profile, softening some pitches and amplifying others.

Dr. Barry Freeman, an audiologist in Clarksville, Tenn., says patients using digital devices report 85 to 90 percent satisfaction, compared with only about 60 percent for conventional wearers. Not all audiologists are embracing the pricey new technology. Dr. Aaron Thornton, director of audiology at the Massachusetts Eye & Ear Infirmary, says the new circuitry also adds new noise. And he's concerned about price: digitals are at least twice as expensive as the average conventional device and most insurers won't cover the cost. But for people like Paul Malkin, a 15-year veteran of hearing aids, there's nothing better. "The relief is like someone lifted a stone off my head," he says.

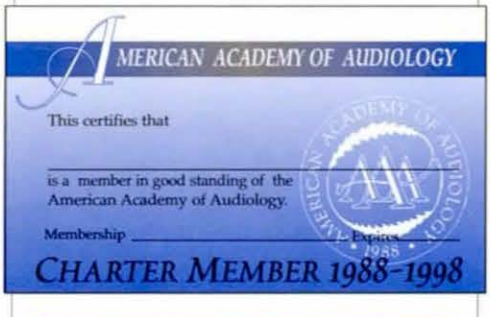
If you're careful, you may never need to resort to this technology. Efforts at prevention are sweeping the country. Kathy Peck felt so strongly about educating others that she started Hearing Education and Awareness for Rockers (HEAR) in San Francisco. HEAR is recording a CD called "Wear Your Damn Ear Plugs," which will combine hip tunes with a warning about loud music. Hearing specialists are in the act as well, giving out earplugs like pediatricians' lollipops. "I keep boxes and boxes of them," says Freeman. "We hand them out like they're candy." They may not taste as good—but your ears will be ringing with joy.

AAA MEMBERSHIP COMMITTEE

NEW AAA MEMBERSHIP CARDS

You will receive a new AAA membership card when you pay your 1998 dues. As we receive your dues payment, a card similar to the one at right, will be printed and mailed to you.

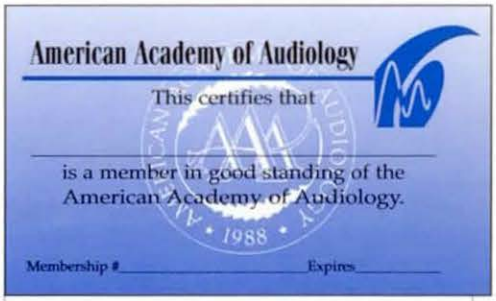
In recognition of our 10th anniversary, a special membership card will be issued to each of our charter members who joined AAA during its founding year - 1988. This card will identify these individuals as Charter Members of the Academy for 1998, and thereby recognize their commitment to AAA. The membership cards will be useful when you call AAA headquarters because your membership number is listed on the front and a quick reference to the AAA National Office's telephone extensions are be listed on the back.



Submitted by *Terrey Oliver Penn*, Chair, AAA Membership Committee

AAA has had significant growth in membership over the past 10 years, from 1835 in 1988 to 6561 in 1997. Benefits offered through membership in AAA also have grown, both in quantity and in quality. Compare the first copy of *Audiology Today* (*AT*), originated on a Macintosh 612, with the slick, well-designed *AT* of today.

Another area where AAA has shown significant growth is in its educational offerings. AAA provides excellent educational programs through which continuing education (CE) units can be earned. CE units can be earned on-site at regional workshops and through distance-learning options or by submission of a written examination covering a selected article in the *Journal of the American Academy of Audiology*. Our annual Convention offers numerous educational opportunities and has become the largest single gathering of audiologists in the world!



AAA also offers a method for members to easily document and verify their participation in these AAA CE activities. Members may join the AAA's Continuing Education (CE) Registry and those who earn 50 hours of CE within a two-year period are awarded the AAA Scholar Award.

Beyond these obvious benefits, AAA Committees and Task Forces work year round on activities to help audiologists in their professional practices and to assist them in providing better hearing health care to their patients.

LETTERS TO THE EDITOR

TOO LOUD!

First, kudos to the Nnuds on their excellent piece about HAON, entitled "Been There. Done That. Got the T-Shirt." I, too have done some of 'that', and even have two T-shirts. As well, thanks to Peter Ketchum of HIMSA for his thoughtful response.

Second, the cover of the July/August, '97 issue of *AT* (great initials, by the way!), indicates the call for 1998 convention program proposals. I propose that any AAA-sponsored event refuse to pay a band or DJ when they exceed acceptable sound pressure levels! I think that it was a disgrace to the profession when our closing-night party in Ft. Lauderdale was so loud that it was truly painful, and that most of us congregated in the hallway outside of the ballroom, raising our voices substantially to communicate. Isn't this what we're all about? Prevention of hearing loss, enhancing effective auditory communication, and the like?
—Art Tepper, Danbury, CT

WHERE WAS THE NATIONAL OFFICE?

The entire nation was abuzz with the startling news that President Clinton was to be fitted with hearing aids. It was reported internationally in the world's most important newspapers, who carried it as a lead story. Investment companies sat up, took notice, and started searching for hearing aid companies that were publicly traded. It was great news for our profession, for it gave a priceless stamp of approval to the idea of hearing aid amplification, especially for aging baby boomers. It was potentially the biggest boost for audiology since President Reagan was fitted about 15 years ago.

And what part did our National Office play in this? Was the AAA approached by the media for interviews? Were they quoted anywhere as to the leading role audiologists play in providing rehabilitation for hearing loss? It seems to me that an alert, aware-of-the-issues National Office of the world's largest organization dedicated solely to audiology would have fallen all over themselves to make sure they were in the middle of this important event. The Hearing Industries Association did. The International Hearing Society did. They were out with press releases and information almost within hours of the announcement.

As a former member of the Board of Directors of the AAA, it has become increasingly clear to me that the AAA now needs an Executive Director who has a firm professionally-oriented grasp and awareness of the political and professional issues that we face. Specifically, we need to hire an audiologist or similar professional with the skills and savvy that these perilous, important times require to head our National Office. Our Executive Director must have public relations and cultivate the relationships that are so important to acquiring visibility. I know we have many in our profession who have these traits; it is a matter of making the job attractive enough to garner the best candidates.
—James Curran, Eden Prairie, MN

Editor's Note: *Please see the President's Message in this issue of* AT *for information about AAA's response regarding President Clinton's new hearing aids.*

In regard to the National Office, the AAA Board of Directors has recently developed a job description for a full-time Executive Director. An active search is currently underway to fill this position. (See page 33.) It is anticipated that the new Executive Director will be in place at the National Office beginning January 1, 1998.

I'M WALKING!

What a sad day this is. I just saw the notice in the (9:5, pg 32) *Audiology Today* in which an audiologist's membership was revoked because he chose to display the AuD credential from the Audiology Foundation of America. Is this what we have come to? Brother turning on brother? And all because someone chose to display a credential which testifies to a high level of clinical knowledge and expertise, a credential which was earned through years of hard work, numerous hours of education, a high level of professional commitment, and a rigorous application process. How does this credential misrepresent that person's achievements? What sin has been committed? I do not understand.

Well, folks, I'm voting with my foot. I hereby cancel my membership in the American Academy of Audiology. I do so to show my support for all audiologists whose memberships in AAA have been or will be revoked because they choose to display and use the AuD credential. In my view, AAA's decision to revoke membership shows that the American Academy of Audiology no longer represents audiology practitioners.

I regret the divisiveness regarding earned entitlement that is currently plaguing the profession of audiology. We are, or used to be, a unified profession with a collective vision of audiology as a doctoral level profession. Regardless of the path to that level - whether by AuD degree, AuD credential, or distance learning - regardless of the path, we have a common destiny and that is AuD. For the sake of our patients and our profession, I hope we will find a way to join together on this issue.
—Victoria Keetay, Terre Haute, IN

Ethical Practices Board Answers:

The Code of Ethics of the American Academy of Audiology was approved and issued in 1991. Since that time it has been the policy of the Ethical Practices Board to investigate any and all complaints with great care and to treat all such complaints with equal consideration. In so doing the EPB follows the "Procedures for the Management of Alleged Violations of the Code of Ethics of the American Academy of Audiology". In the situation described in the above letter, the EPB found the member to be in violation of Principle 6: Rule 6A.
—T. Newell Decker, Chair, Ethical Practices Board

I BELIEVE IN DOCTORAL EDUCATION

I periodically receive mailings from audiology organizations asking that I support the AuD credential. I would like to respond publicly.

A college degree, and any title associated with it, must be earned at an accredited institution. The public understands this, our peers in other professions understand this, and those who call for the AuD credential once understood this or they would not have earned graduate degrees themselves.

Some of the arguments for the AuD are especially offensive to me. Specifically, it is argued that earning an AuD would be too inconvenient and costly for practicing audiologists (e.g., see the Audiology Foundation of America's *Torchbearer*, Fall, 1997). I believe in doctoral education for audiology and I acted on it by leaving a job, borrowing money, and completing a rigorous plan of study to earn a PhD. It was inconvenient. It was difficult. It was, and is still, costly. And now audiologists that did not make similar sacrifices want me to support granting them a title they have not earned? I will not.

For hundreds of years, universities have granted degrees and titles only to those who earned them. That is the only ethical and reasonable way to train and credential audiologists.
—Jim Steiger, Boynton Beach, FL

Comments

AAA COMMENTS ON HCFA PROPOSED REVISIONS TO PAYMENT POLICIES UNDER THE PHYSICIAN FEE SCHEDULE

Health Care Financing Administration
Department of Health and Human Services
Attention: BPD-884-P
Room 309-G
Hubert H. Humphrey Building
200 Independence Avenue, S.W.
Washington, DC 20201

RE: BPD-884-P - Proposed Revisions to Payment Policies Under the Physician Fee Schedule

Dear Sir or Madam:

The American Academy of Audiology (AAA) appreciates the opportunity to comment on the Health Care Financing Administration's (HCFA) proposed revisions to its payment policies under the Medicare physician fee schedule. AAA is the national organization representing professional audiologists throughout the United States. A large number of AAA members participate in the Medicare program, providing diagnostic hearing care services to Medicare beneficiaries.

It is especially important that HCFA accurately account for the work performed and costs incurred by audiologists in providing services to Medicare beneficiaries. Audiologists are the professionals who are licensed to both (1) perform and (2) interpret diagnostic audiologic tests, and are the primary providers for these services in all clinical settings. Nevertheless, audiologists currently do not receive physician "work" RVUs for audiological procedures. It is imperative that audiologists be able to recoup adequate compensation for services provided, to stay economically viable and be able to provide the high-quality, cost-effective services Medicare beneficiaries and HCFA deserve and have come to expect.

AAA especially applauds HCFA's proposed regulations recognizing that audiologists are trained and licensed as independent health care practitioners, and do not need physician supervision in evaluating a patient's hearing health and determining whether a medical condition may be present. The proposed regulations will promote efficiency in the provision of hearing health care to Medicare patients, by avoiding unwarranted supervision and duplication of services/expense. Indeed, the proposed regulations simply codify HCFA policy that has been in place for many years.

We also support HCFA's handling of caloric vestibular testing procedure codes. The proposed administrative approach better comports with testing practice, and, as HCFA notes, it will eliminate confusion in billing, thereby rendering the claims process more efficient.

Given Congress' and HCFA's acknowledgment of the value of audiologists as independent practitioners in the Medicare system, AAA would greatly appreciate HCFA's recognition that it is audiologists who perform (although not always audiologists who bill) caloric vestibular testing and other diagnostic audiologic procedures. In the preamble to the proposed rule, for example, HCFA repeatedly referred to "physicians" performing caloric vestibular testing:

> **According to the article "Caloric Vestibular Test"...physicians usually perform four irrigations. However, that same article states that... When four irrigations are performed, the physician should bill for four CPT code 92543 services. We have issued contrary instructions to physicians. Therefore, beginning in 1998, when a physician performs and interprets four irrigations, the physician would bill Medicare for four units of CPT code 92543....**

62 Fed. Reg. 33, 158, 33,183 (June 18, 1997) (emphasis added; similar language appears at 62 Fed. Reg. at 33,191). AAA requests that the phrase "physician and/or audiologist" be used instead of simply "physician," to more accurately reflect and clarify which practitioners may perform, interpret, and bill Medicare for caloric vestibular (or other) testing.[1] (See Attachment A.)

AAA generally supports the values for practice expense and malpractice coverage set forth in the proposed rule. We are very pleased that the values for most procedure codes have been increased from the current fee schedule — this correctly reflects the fact that practice expenses have risen. HFCA should finalize these increased values, as proposed.

A major concern, however, is that the values for five procedure codes — 92557, 92584, 92585, 92587, and 92588 - have been cut drastically from 1997 fee schedule levels. For example, using current geographic practice cost indices and conversion factors, in Virginia reimbursements would be cut by approximately 45, 65, 43, 51 and 37%, respectively. The proposed reimbursement values appear not even to equate to the 50th percentile of charges assessed nationally for the procedures in question (see Attachment B).

We urge HCFA to provide RVUs increased for procedures 92557, 92584, 92585, 92587, and 92588 similar to the other audiology codes or, at a minimum, to restore these values to current levels. The five reduced codes represent some of the most widely-used diagnostic audiologic procedures. They require significant practitioner time,[2] some of the highest-cost equipment needed by audiologists to evaluate patients,[3] and sophisticated audiologic training to interpret test results. Increasing the proposed values for procedure codes 92557, 92584, 92585, 92587, and 92588 will balance true cost and labor more appropriately.

AAA greatly appreciates your consideration of these comments.

Deborah Hayes

Sincerely, Deborah Hayes, PhD, President

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ATTACHMENT A

In 1996, ICS Medical Corporation (the major manufacturer of electronystagmography (ENG) equipment for vestibular assessment (92541, 92542, 92543, 92544, 92545, 92546, 92547)) performed a survey regarding ENG practices and charges. Based on information provided by 328 survey respondents, ICS Medical reported the following data:

WHERE ARE ENG'S PERFORMED?		WHO PERFORMS ENG TESTING?		WHO INTERPRETS ENG RESULTS?	
ENT facility	43%	Audiologist	84%	Audiologist	60%
Audiology facility	32%	Technician	11%	Audiologist/Physician	20%
Combined ENT/ Audiology facility	11%	Audiologist/Technician	4%	Physician	17%
Diagnostic center	9%	Other	1%	Audiologist/PARTNER	3%
Neurology facility	4%			Other	1%

▶IT IS IMPORTANT TO NOTE THAT:

- Audiologists perform ENG testing in 88% of cases
- Audiologists interpret ENG test results in 83% of cases
- Only 17% of interpretation is performed exclusively by physicians

ATTACHMENT B

In its publication "Physician Fees: A Comprehensive Guide for Fee Schedule Review and Management — 1997," the Practice Management Information Corporation (PMIC) compiled a listing of procedure codes and associated usual, customary, and reasonable (UCR) fees. According to PMIC, the UCR fees are derived from an analysis of over 100 million actual charges verified against a background database of over 600 million submitted charges throughout the U.S. The data on audiology procedures are as follows:

Procedure Code	50th Percentile UCR Fee	Medicare Payment Using Proposed RVUs & Current Conversion Factors for Virginia	1997 Virginia Payment	Proposed Reduction 1997 to 1998
92557	$75	$21.07	$38.27	- 45%
92584	$164	$27.63	$79.55	- 65%
92585	$249	$70.75	$124.26	- 43%
92587	$118	$24.10	$49.26	- 51%
92588	$166	$42.89	$67.98	- 37%

[1] Ultimately, AAA believes it would be fully appropriate — and consistent with the policy underlying currently recognized limited license practitioners, e.g., optometrists, podiatrists — for audiologists to be recognized as "physicians" under Medicare. Until that occurs, however, we encourage Medicare to be as accurate as possible regarding the abilities of audiologists to serve Medicare patients, and the cost-effectiveness of our services.

[2] For example, a full hour generally is required to conduct a basic audiometric test (92577), interpret the results, counsel patients, and provide report to referring physicians regarding the results.

[3] For example, an audiometer and sound-attenuated room (needed for 92557) may cost an average of $7,000 and $14,000, respectively. Auditory evoked potential equipment (needed for 92585) currently may cost between $16,000 and $30,000.

WASHINGTON WATCH

FEHBP ACTION IN THE HOUSE OF REPRESENTATIVES — FINALLY!

As you know, H.R. 176 (the "Hearing Care for Federal Employees Act") — a one-word statutory amendment to enable federal civilian employees and their families under the Federal Employees Health Benefits Program (FEHBP) to access audiologists directly — has been pending before the Civil Service Subcommittee in the House of Representatives. H.R. 176 would add the term "audiologist" to an existing list of non-physician health care providers (*e.g.*, optometrists, psychologists) to whom direct access already is provided.

On October 22, 1997, the Civil Service Subcommittee "marked up" (*i.e.*, voted on) two other bills involving federal employees (H.R. 1836, addressing fraud and abuse under the FEHBP; and H.R. 2675, addressing the federal employee life insurance program). The Subcommittee reported those bills favorably to the full Committee on Government Reform and Oversight for further action.

Chairman Ben Gilman (R-NY) — the primary sponsor of H.R. 176 — had asked Civil Service Subcommittee Chairman John Mica (R-FL) to include H.R. 176 on the agenda for the October 22 mark-up. However, pursuant to a subsequent agreement between the two Chairmen, H.R. 176 was *not* on the agenda that day. Instead, Chairman Gilman and Chairman Mica agreed to "negotiations" over legislative language that might be acceptable to both offices. (As you may recall, Chairman Mica objected to H.R. 176 on various grounds, *e.g.*, concerns about government mandates, and the potential "floodgate" effect of opening up the statutory list of recognized health care providers.)

On October 31, following an extremely active week of lobbying, the Government Reform and Oversight Committee amended the H.R. 1836, as reported by the Civil Service Subcommittee, to respond to the American Academy of Audiology (AAA). The Government Reform Committee favorably reported to the full House of Representatives H.R. 1836, including the following, new provision:

> SEC. 8. CLARIFICATION RELATING TO SECTION 8902(k)
> Section 8902(k) of title 5, United States Code, is amended —
> (1) by redesignating paragraph (2) as paragraph (3); and
> (2) by inserting after paragraph (1) the following:
> "(2) Nothing in this subsection shall be considered to preclude a health benefits plan from providing direct access or direct payment or reimbursement to a provider in a health care practice or profession other than a practice or profession listed in paragraph (1) [*i.e.*, the existing list of non-physician providers to whom direct access and reimbursement is guaranteed under FEHBP], if such provider is licensed or certified as such under Federal or State law."

This language reflects a compromise reached between Chairmen Gilman and Mica in lieu of further action on H.R. 176 in the House. Although the term "audiologist" was not included in the statutory language, the compromise is a major step forward, and Chairman Mica has agreed to specifically mention audiologists in the Committee report accompanying H.R. 1836. (Committee reports generally explain what the Committee did and why. This language can be used for lobbying, in litigation, and for many other purposes.)

At the Government Reform and Oversight Committee mark-up, Chairman Mica made a statement regarding the new compromise § 8 in H.R. 1836. Chairman Mica specifically mentioned contacts from audiologists as a basis for the statutory clarification being made; he did not mention any other professions.

Rep. Elijah Cummings (D-MD), who is the Ranking Minority Member on the Civil Service Subcommittee, also made reference to H.R. 176. He noted that Chairman Gilman's desire to raise H.R. 176 for a vote and "some opposition" led to the Gilman/Mica negotiations. Rep. Cummings indicated that he was a co-sponsor of H.R. 176, and stated that the compromise amendment "made a good bill [*i.e.*, H.R. 1836] even better."

The full House of Representatives is expected to vote on H.R. 1836, as amended, on Tuesday, November 4. The Committee report also must be filed by then. Assuming that H.R. 1836 passes the House, the bill will be sent to the Senate for consideration.

The action of the Government Reform and Oversight Committee represents an important moment for AAA. There is finally some legislative movement related to H.R. 176 — which may help reduce limitations on the provision of hearing care.

AAA also has truly advanced its political presence in Washington. You are responsible for today's statutory compromise — *H.R. 1836 as agreed to by the Civil Service Subcommittee had no language addressing direct access and reimbursement under FEHBP*. However, H.R. 1836, as passed by the full Government Reform and Oversight Committee has language on this issue. It is also quite clear that several key Members of Congress are learning who audiologists are.

Your hard work is paying off! Keep it up!

Congressman Cox agrees to co-sponsor H.R. 176, the Federal Employees Hearing Health Care Act. Mr. Cox, (on the right) shown here with Sharon Fujikawa and Michael Metz, sits on the subcommittee considering this bill and is important to the passage of this bill on to the full committee.

Submitted by *Marshall Matz, Esq.* and *Christina Markus, Esq.*, Olsson, Frank and Weeda, P.C., Washington, DC

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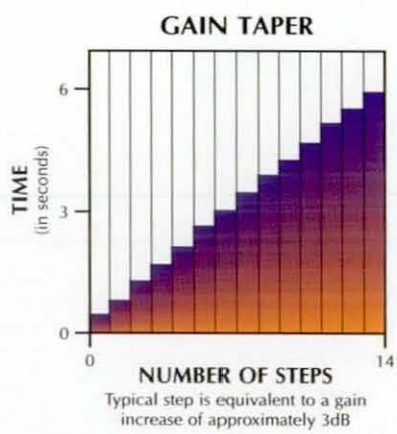

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LA CONVENTION NEWS

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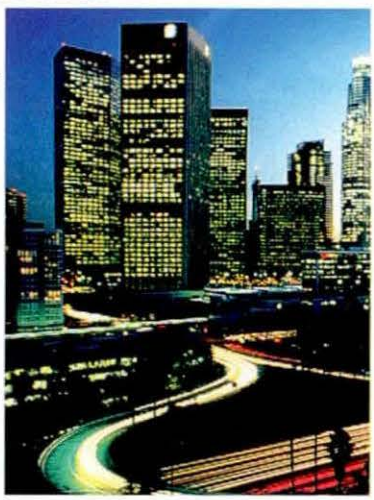

This is LA and everyone just wants to have fun. Well, you will have tons of fun and a whole lot more in the City of Angels. You've been to the mountains (Salt Lake City, 1996). You've been to the beach (Ft. Lauderdale, 1997). You've been to the desert (Phoenix, 1993). But in Los Angeles, you can have it all! The city of Los Angeles offers something for everyone. From the serious to the frivolous, trends start here...and some say the future starts here.

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SEEING AND BEING SEEN

If you never left the downtown area, you would still have enough to keep yourself busy for your entire stay and then some. There's the Museum of Neon Art, The Geffen Contemporary at MOCA, The Natural History Museum, The Central Library, The Museum of Science and Industry and the Music Center, most of which are a 25¢ DASH ride away from the Convention Center. Further excursions can take you to Disneyland, Knott's Berry Farm, the Queen Mary, Universal Studios, Magic Mountain, L.A. Museum of Art, Simon Weisenthal Museum of Tolerance, Gene Autry Museum, the Norton Simon Museum of Art, the new Getty Museum and Cultural Center, the Skirball Cultural Center, the Museum of Radio and Television, The Museum of Miniatures, the Huntington Library, the Richard Nixon and Ronald Reagan Presidential Libraries, the Hollywood Entertainment Museum, the Craft and Folk Art Museum, the Armand Hammer Museum of Art and Cultural Center, the Museum of Flying, the Peterson Auto Museum…the possibilities are endless!!

Submitted by *Donna Glick*, 1998 AAA Convention Local Arrangements Chair, Encino, CA

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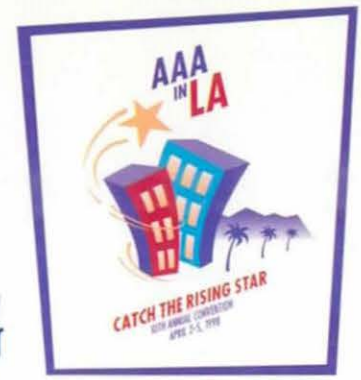
Photos on this page courtesy of the Los Angeles Convention and Visitors Bureau. Tom & Michele Grimm.

LA CONVENTION NEWS



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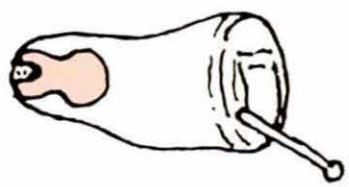

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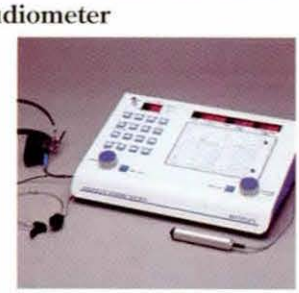

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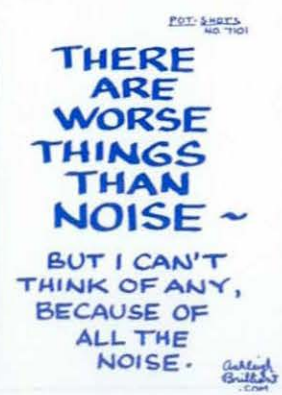
Viewpoint
DOES "HI-FI" HAVE TO BE SO LOUD?

Several years ago we decided it was time for our family to come into the real world of home video. We had delayed purchase of a VCR until the predicted "hi-fi" sound tracks and players were available. That made sense to me, being an audiologist, a sometime musician, and a long-time owner of component audio systems.

Now, to me, hi-fi (contraction of high fidelity) simply means (a) moderate gain, (b) broad flat, frequency response, and (c) low distortion. Each component (input, amplifier and transducer) has to meet those three requirements for high fidelity results. There were some interesting innovations such as a loudness (bass) boost for low volume control levels, but, otherwise, when the volume was set to be 'too loud' most everything was too loud. If the gain was reduced a bit, it was just 'softer,' although likely audible and intelligible. If the gain was reduced too much, the signal was not likely to be comfortably loud.



Relative to audio tracks on broadcast television and early movies and audio recordings on turntable and tape, we can think of the recording approach as a type of compression: that is, the highest intensities are compressed (gain reduced) to some critical point, and the lower intensities are compressed (gain increased) to a critical level for optimum understanding. These, of course, are the basic functions of compression; low intensity inputs have gain added, and high intensity inputs have gain reduced, fitting into a specific "dynamic range." That dynamic range was essentially constant, e.g. 60dB, no matter what the volume control was set at (10-70dB, 20-80dB, etc.) up to the saturation level of the amplifier or transducer.

When I connected my new "hi-fi" VCR (outputs to my component stereo, of course), we looked forward to great quality sound to go along with our new monitor-type television. We remember the first movie (*Silverado*) as if it were yesterday. The very first part was dialogue, and I turned up the volume control of the stereo. When the action music stopped, we couldn't understand the dialogue - and so on, during this and other "hi-fi" tapes.

These new recording techniques (found in hi-fi tapes, movie theaters, and in many CD recordings) can be thought of as "dynamic range expansion" rather than compression. While traditional analog amplifiers have operated with about 60dB dynamic range, current equipment now has the capability of being sensitive to and reproducing a much greater intensity range with considerably lower distortion (CD player specs with dynamic range of 90dB, signal to noise ratio of 90dB and extremely low distortion are common).

The application of this very wide dynamic range is the source of the frequent observations we hear from our patients. Robert Sweetow, at University of California San Francisco, recently measured peak levels of 112dB SPL and 107dB SPL at two movies. We can think of this expanded dynamic range amplification system in the way we do a Class D hearing instrument. If the theater engineers turn down the VC so that the peak levels become more tolerable, the dialogue may become much less intelligible. If the VC of the theater amplifier is increased to the point that softer speech is easily intelligible, then other outputs may be in the 107-112dB range.

If we take this information and apply it to the hearing-impaired, it becomes obvious why we hear frequent complaints. For those without hearing instruments, much dialogue is lost, while high intensities cause loudness tolerance problems. With use of hearing aids, sensation levels of some dialogue will still be too low for good intelligibility, and unless the outputs of the hearing aids are carefully set, very high outputs frequently reach the maximum output level. Consider the outputs we see using real-ear with inputs of even 85dB SPL.

From the perspective of hearing conservation, the impact of such intensity levels probably is not significant for the general population due to the rather limited duration. It would seem that the probability of acoustic trauma would increase for hearing aid wearers relative to gain/output levels. If we understand the audio dynamics of theaters and certain video tape players, we can more effectively counsel our patients concerning their experiences and expectations while wearing hearing aids. One recommendation might be to refrain from buying a "hi-fi" VCR player. Another might be to ask for infra-red receivers (which operate with lower dynamic range) and remove the hearing aid.

The responsibility for these audio characteristics lies with the moviemakers and recording engineers rather than with the movie theaters and playback systems. Audio recordings are very specifically mixed for dramatic effect (ie., broad dynamic range) and the playback systems in theaters are designed to accommodate those characteristics. The technicians in the movie theater can increase or decrease the gain, but not the dynamic range characteristics. If we individually feel that the sound track characteristics are sufficiently problematic, we should voice our opinions to both theaters and the motion picture industry.

Submitted by *Robert Mareing*, Brentwood, MO

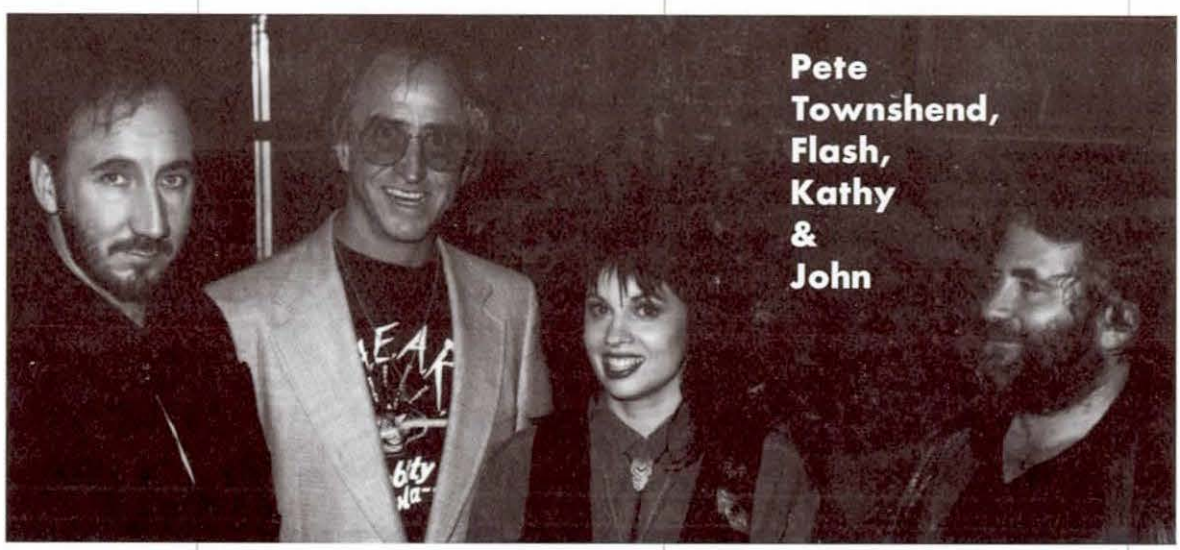
Now H.E.A.R. this!

H.E.A.R. (Hearing Education and Awareness for Rockers)

[So that later you still can.]

In the United States more than 51 million people suffer from tinnitus (ringing in the ears) and 28 million have hearing loss. This makes hearing loss the number one hidden disability in America, because it's gradual, invisible, and irreversible. The good news is that it is also preventable. Much of the hearing loss that we used to attribute to old age is actually noise induced. That is, if you stay away from loud noise and music, your chances of hearing impairment is greatly reduced.

H.E.A.R. is an organization dedicated to preventing hearing loss and tinnitus, especially amongst children, young adults and the music community. H.E.A.R. (Hearing Education and Awareness for Rockers), started in 1988 by musician Kathy Peck, bass player and singer/songwriter of the seminal San Francisco punk band "The Contractions." She suffered hearing loss and tinnitus aggravated by exposure to excessive noise while performing at a concert at the Oakland Coliseum, opening for Duran Duran. Though a professional and personal setback, the injury provided the incentive for Kathy to throw her energy into a new direction.



Pete Townshend, Flash, Kathy & John

H.E.A.R.

By joining forces with Flash Gordon, MD, then medical director for the Haight Ashbury Free Clinic, whom she met at an excessively loud concert in San Francisco, Kathy decided to address the health problems caused by exposure to loud music. Kathy organized H.E.A.R.'s first fund raiser, a Celebrity Rock and Bowl-a-Thon, which was covered heavily in the media. Funds were to provide medical equipment for a hearing screening program at the Haight Ashbury Free Medical Clinic.

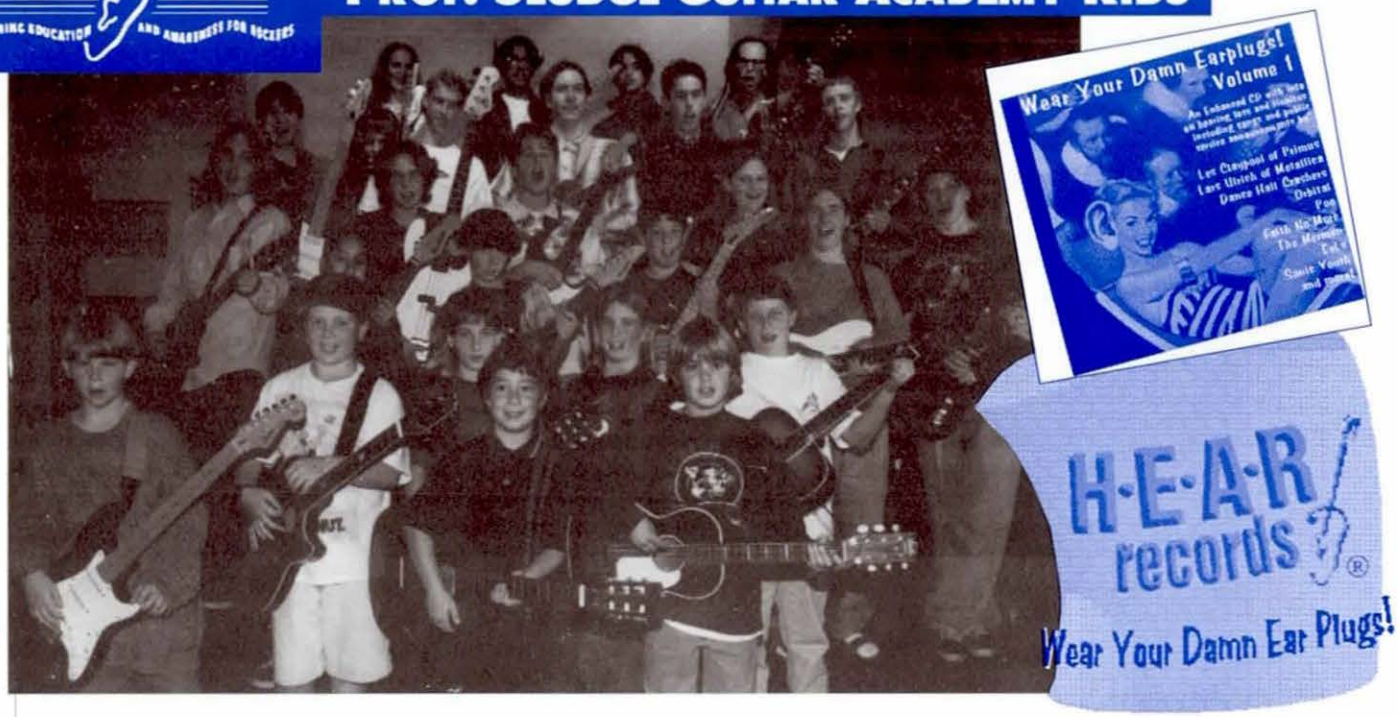
Back then, in 1988, the hearing testing room at the overcrowded Haight Clinic was in the medical closet (the quietest room in the clinic!). Meanwhile, Kathy ran the business office out of her closet at home! Pete Townshend helped H.E.A.R. "come out of the closet" when he came forward about his own hearing loss in 1989. His founding donation of $10,000 and his endorsement of H.E.A.R.'s efforts helped to establish H.E.A.R. as a non-profit organization.

Since then, H.E.A.R. has provided hearing testing services in the Bay Area and has developed a growing network of over 80 different audiologists, ear nose and throat doctors and hearing manufacturers who champion H.E.A.R.'s cause. These "H.E.A.R. Affiliates" are listed as a referral base on HEARNET, H.E.A.R.'s web site at www.hearnet.com which receives over 3,000 to 4,000 hits a day — mainly from musicians, sound engineers and music fans looking for hearing help, hearing protection, custom musician's plugs, ear monitors or hearing aids. With HEARNET, musicians can find the latest information on hearing loss and tinnitus, chat with other musicians, check out music videos and contests, or look up a H.E.A.R. affiliate near them for custom earplugs or hearing aids.

What makes HEARNET so popular is H.E.A.R.'s relentless publicity. Having been featured both on CNN and MTV, HEARNET has won three outstanding audiology and music website awards. The MTV segment "Mega Dose II" is in continuous rotation and features prominent musicians such as the Red Hot Chili Peppers, Faith No More, and Primus. Members of these groups speak out about hearing loss and tinnitus while having their hearing checked and ear molds made for musicians earplugs. The HEARNET website address is flashed on the screen for everyone to contact. In addition, H.E.A.R.'s public service announcement spots are played on the major networks nationally and feature major music celebrities such as Metallica, Sonic Youth, and Ray Charles, among others, warning people about the dangers of the Decibel. H.E.A.R. has also had articles, stories and PSA ads in everything from *McCall's* to *Rolling Stone* magazine.

In addition to media campaigns, H.E.A.R. provides outreach programs in the schools and the community. For example, H.E.A.R. is featured in the Active Physics curriculum for high schools which is funded by the National Science Foundation and is used in all 50 states. To supplement the textbook, students watch H.E.A.R.'s award winning video "Can't Hear You Knocking" which details the detrimental and debilitating effects of noise from the musician's perspective. "Can't Hear You Knocking" is in demand by corporate hearing conservation programs, jr. high schools, universities and even the US Army! Last year H.E.A.R. provided the summer concert tour "Lollapalooza" with 60,000 free E-A-R ear plugs donated by Aearo Company. H.E.A.R. can often be found at music events handing out information and free plugs. This year H.E.A.R. affiliate audiologist, Robert Ghent of the Musicians Hearing Institute in Los Angeles assisted H.E.AR. on the Lollapalooza Tour by passing out ear plugs and giving interviews at his local radio rock station. Sheri

PROF. SLUDGE GUITAR ACADEMY KIDS



Rubin of Hearing Services of Tennessee, another dedicated H.E.A.R. affiliate audiologist, staffed a booth at the National Association of Music Manufacturers Conference in Nashville. H.E.A.R. hopes to have more audiology affiliates involved with our many outreach programs and media interviews.

Currently H.E.A.R. is working on a fundraising album called "Wear Your Damn Ear Plugs! Volume 1" that will feature music and public service announcements from such prominent musicians as Sonic Youth, Metallica, Ray Charles, Poe, Eels, Orbital, Faith No More, Les Claypool, Mighty Mighty Bosstones, Todd Rundgren, Ted Nugent, Pete Townshend, Dance Hall Crashers, Mermen, Faith No More, M.I.R.V., and Biohazard. The album will be in the form of an "enhanced CD" which will have multi-media presentations on the ear and hearing loss that will be playable on most computers. The release date for the compilation has been scheduled for May Better Hearing and Speech Month 1998. H.E.A.R. is raising money to fund the project by taking on sponsors for the record. Companies and organizations that wish to support the organization can have their logos on the album or video Public Service Announcements in recognition of their support.

H.E.A.R. Needs Help

H.E.A.R. is seeking grants and donations to help compile ten years worth of data taken from surveys of thousands of musicians into a scientific report on the state of musicians and hearing loss. To date, this will be the most comprehensive study about the effects of noise on musicians. H.E.A.R. hopes to raise $75,000-$100,000 to hire experts and the equipment necessary to process this kind of information. Ken Einhorn of the American Academy of Otolaryngology's sub-committee on Medical Aspects of Noise states, in a letter supporting H.E.A.R.'s research study, "I firmly believe that proper review and analysis of H.E.A.R.'s data and accompanying audiograms will be crucial in shedding light on the issue of hearing loss from chronic exposure to loud music. The large number of subjects over the great length of time could make this one of the most comprehensive studies that can be done on this issue."

H.E.A.R. is neither State nor Federally funded and relies on donations and grants to keep our doors open. Without the work of our many volunteers there would be no H.E.A.R. This would be unfortunate for the hearing health industry because as Westone's General Manager E. Lockwood in an interview with the *Boston Globe* says, "Custom earplug sales have risen 20 percent a year in the past five years" which he attributes to more "education and awareness." Obviously, H.E.A.R.'s message is coming through loud and clear.

We Need You!

H.E.A.R.'s message is reaching musicians and music fans of all ages, especially kids in high school or college preparing to go into the work force. H.E.A.R. is the only organization whose main goal and mission is to work with this large group to prevent hearing loss and tinnitus before it happens. Says Peck, "We just need some corporate angels. We've got the kids' attention and the big names, now we just need the support to keep up with the demand for our services." Ever since President Bill Clinton was diagnosed with music-related hearing loss, H.E.A.R. has been swamped with phone calls from individuals and the media. "We're at a point where we can barely take the time out to do an interview. It's that hectic around here," says Kathy.

For more information, to make a donation or become a H.E.A.R. audiology affiliate, Contact:

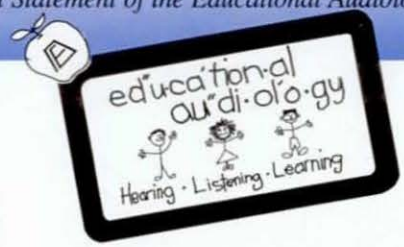
The H.E.A.R. Office
50 Oak St. Ste. 101
San Francisco, CA 94102

Mailing Address:
H.E.A.R.
PO Box 460847, San Francisco, CA 94146
Phone: (415) 431-EARS or (415) 431-3277
24 Hour Hotline: (415) 773-9590
Fax: (415) 552-4296
Email: hear@hearnet.com
Website: http://www.hearnet.com

POSITION STATEMENT

AUDITORY INTEGRATION THERAPY

Position Statement of the Educational Audiology Association



The mission of the Educational Audiology Association is to provide comprehensive management of individuals who have listening and/or hearing difficulties in all educational environments from birth to graduation from high school. Recently, audiologists in school settings have been approached by parents for information about Auditory Integration Therapy (AIT). This therapy was originally designed for individuals with autism; however, individuals with dyslexia, attention deficit hyperactive disorders, and other disabilities have also received AIT. The intended purpose of AIT is to reduce hypersensitivity to sounds; therefore, since AIT attempts to remediate listening difficulties, educational audiologists are ethically responsible for presenting accurate information and a professional position about a therapy designed to improve listening abilities.

One position statement and one technical report regarding the practice of AIT have been published in the past four years (American Academy of Audiology, 1993; American Speech - Language - Hearing Association, 1994). Both documents described the experimental nature of the therapy (that is, not supported by controlled scientific studies). Although both papers called for such studies to be conducted, none have been forthcoming. Since the publication of these papers, the Federal Food and Drug Administration (FDA) has determined the equipment used for AIT to be Class 3 medical devices which require FDA clearance prior to being used clinically. AIT equipment has not yet received this clearance, and use of said equipment can be considered a violation and the equipment subject to seizure.

The Educational Audiology Association supports the position put forth by both AAA and ASHA, to wit:

Auditory Integration Therapy has not been proven to be a viable treatment for any disability. Only inconsistent, uncontrolled, anecdotal evidence has been provided to support claims of changes in auditory performance. Educational audiologists must advise parents of the risks of experimental procedures such as Auditory Integration Therapy, and of their right to request a forthright statement of expected outcomes by providers of such experimental methods. Furthermore, the Educational Audiology Association warns that without controls to protect against excessively loud auditory stimuli, Auditory Integration Therapy may cause harm to a child's auditory system.

REFERENCES

American Academy of Audiology (1993). Auditory integration therapy: Position statement. *Audiology Today* 5(4), 21.

American Speech - Language - Hearing Association (1994). Auditory integration therapy. *ASHA* 36(11), 55-58.

The Educational Audiology Association is an international network of audiologists with the purpose of facilitating the delivery of a full spectrum of hearing services to all children in educational settings.

NEWS & ANNOUNCEMENTS

INDIANA SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY LICENSURE BOARD EXPLORES RULE CHANGE

At their July 8, 1997 meeting the Indiana Speech-Language Pathology and Audiology Licensure Board voted to explore the possibility of a rules change that would permit use of the "earned entitlement" AuD designator in the state. An Indiana consumer sales law currently states that the use of an abbreviation associated with the title "doctor" is a deceptive consumer practice, and use of the AuD designator without regulation could subject a practitioner to civil penalties. According to Deputy Attorney General Jeffrey S. McQuary, however, Indiana state law authorizes the licensure board to adopt rules regarding titles, and in the current situation, to declare that the use of the "AuD" designator would not constitute a deceptive sales act. (See *Audiology Express*, March, 1997.)

The Audiology Foundation of American (AFA) and the Indiana Academy of Audiology (InAA) provided extensive testimony supporting earned entitlement to the Indiana Licensure Board. Testimony from AFA and InAA centered on establishing uniformity in the profession of audiology which would provide some measure of quality assurance to Indiana consumers. Conversely, correspondence also was received by the Licensure Board from all three accredited state universities in Indiana offering post-baccalaureate education in audiology, opposing earned entitlement. The consensus opinion, according to Board Chair Alan Diefendorf, was that the awarding of the title "Doctor of Audiology" to those who have failed to earn the degree from an accredited institution not only weakens the doctoral degree for those who have elected or will elect to earn it from an accredited institution, but also causes tremendous confusion among consumers in terms of distinguishing the academic AuD from the entitled AuD. Moreover, the State of Indiana Commission for Higher Education registered its concern about the broader implications of adopting a rule that "would likely undermine Indiana's system of higher education by not requiring licensees to graduate from programs in accredited institutions".

At the Indiana Speech-Language Pathology and Audiology Licensure Board meeting held on October 7, 1997, a motion was made to advance the following rule to the next stage for public comment:

"A licensed audiologist does not commit a deceptive sales practice within the meaning of Indiana Code by using the title "Doctor" or by displaying "AuD" after the degree he or she has earned if he or she has received the AuD credential through earned entitlement from the Audiology Foundation of America prior to July 1, 2007."

The Licensure Board reached an impasse on the motion by a vote of 3-3. As such, the motion failed to receive a simple majority and further discussion was tabled.

PRE-CONGRESS SYMPOSIUM

The PanAmerican Society of Audiology (PASA) will hold a precongress symposium before next summer's International Congress of Audiology (ICA). The symposium will be held in Quito, Ecuador during the week before the ICA. The meeting will be held August 25-27, 1998 in Quito with the title "International Audiology Course". For information contact Fausto Coello-Serrano, Jorge Juan #346, Quito, Ecuador.

AAA ELECTIONS APPROACHING

1998 AAA Presidential candidates are Cheryl DeConde Johnson, Colorado Department of Education, and private practitioner Robert Glaser of Dayton, OH. Both are current Members-At-Large of the AAA Board of Directors.

The 1998 candidates for the three Member-At-Large vacancies on the AAA Board of Directors are Allen Diefendorf, Alison Grimes, Gyl Kasewurm, Martin Robinette and Brad Stach.

The full slate of candidates for election to the AAA Board of Directors will be highlighted in the January-February 1998 issue of **Audiology Today.**

Harvey Dillon was the keynote speaker at the recent Oticon 'Human Link' Conference held in Stone Mountain, GA. Dillon is Director of the Hearing Aid Research Section of the National Acoustics Laboratory in Sydney, Australia.

ATTENTION A3-OL SUBSCRIBERS.

Due to insufficient AAA member interest, the A3-OL internet program has been discontinued. Subscribers requiring refunds or needing to cancel credit card charges should fax or e-mail notification to the American Academy of Audiology National Office @ fax (703) 610-9005 or e-mail pac@audiology.org.

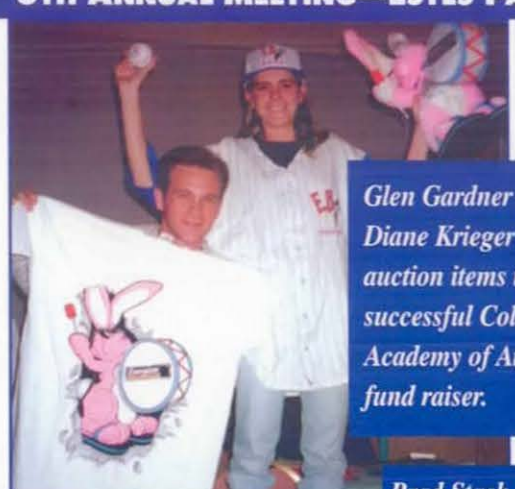
NEWS & ANNOUNCEMENTS

THE "SOUNDS OF TEXAS" PROJECT

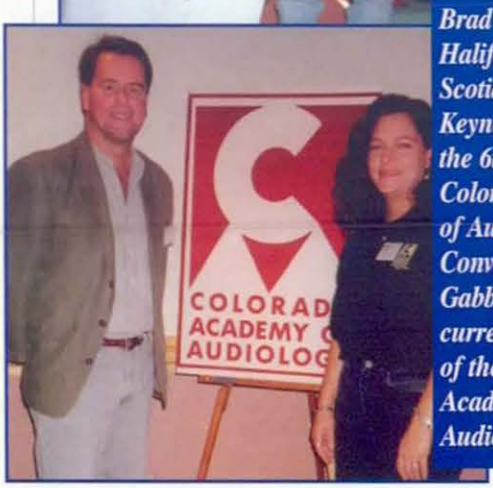
The Sounds of Texas Project is a partnership between Callier Center for Communication Disorders/University of Texas at Dallas, Deaf Action Center, Hearing Health Institute, OZ Corporation, and the Texas Department of Health. The Sounds of Texas Project facilitates implementation of Universal Infant Hearing Detection Programs throughout the state of Texas. As of August 1997, The Sounds of Texas Project has established University Infant Hearing Detection Programs in 16 birthing hospitals in Abilene, Bedford, Carrollton, Dallas, Fort Worth, Garland, Port Arthur, San Marcos, and Tyler, Texas. In 1996, 43,000 infants were screened at hospital programs implemented through our efforts in the state of Texas. The Sounds of Texas Project also collaborates with diagnostic audiological sites which provide the intervention for infants detected through the infant hearing screening process. Our goal is to Detect and Connect One Baby at a Time.

The "Sounds of Texas" Project: Pictured (left to right) Kim Powell (HHI), Kathryn Albright (HHI), Wendy Crumely (Callier), Maria Cantu (Callier), Cheryl Wolters (HHI), Terese Finitzo (Callier & HHI), Lee Wilson (Callier), Jennifer Carlock (Finitzo & Assoc.), and Ross Roeser (Callier). Not pictured: Joy O'Neal (Texas Dept. of Health), Misty Johnson (Deaf Action Center), Karen Clark (Callier), Bill Lamm (OZ), Bailey Nichols (OZ), and Ken Pool (OZ).

COLORADO ACADEMY OF AUDIOLOGY 6TH ANNUAL MEETING—ESTES PARK, CO



Glen Gardner and Diane Krieger display auction items in the successful Colorado Academy of Audiology fund raiser.

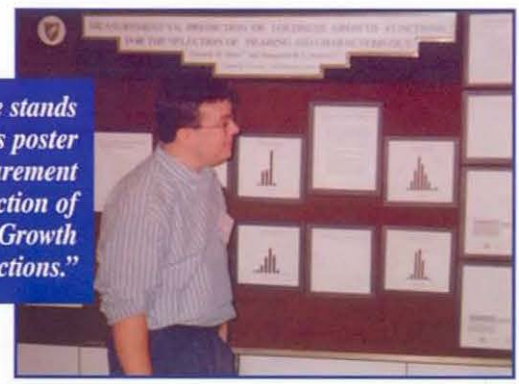


Brad Stach from Halifax, Nova Scotia, served as Keynote speaker at the 6th Annual Colorado Academy of Audiology Convention. Sandra Gabbard is the current President of the Colorado Academy of Audiology

Second Biennial Hearing Aid Research and Development Conference • Bethesda, MD

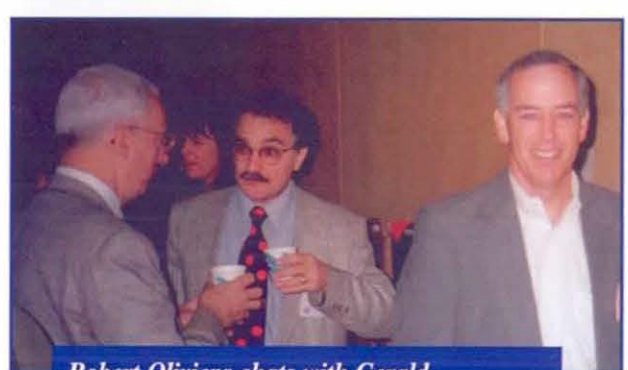
Pat Stelmachowicz of Boys Town National Research Hospital in Omaha served as Moderator at the session on Selection, Evaluation and Outcome Measures for Hearing Aids.

Timothy Trine stands in front of his poster entitled "Measurement vs. Prediction of Loudness Growth Functions."



Joseph Smaldino, Chiquita Ewert and Gus Mueller enjoy the coffee break.

Carl Crandall, University of Florida, spoke at the NIDCD/VA Hearing Aid Research Conference.



Robert Oliviera chats with Gerald Schuchman and David Hawkins.

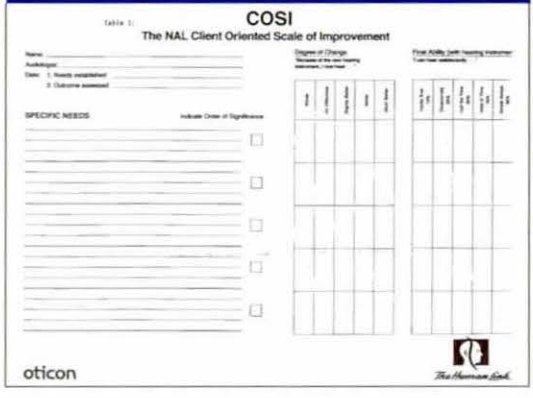
Geary McCandless, Larry Humes and Don Dirks exchange pleasantries.

Feature Article

Patient Reported Benefit and Objective Outcome Data in Adult Cochlear Implant Patients

In this new age of managed care, health care professionals have increasingly been aware of the need for patient outcome data in all areas of treatment. Hearing health care professionals are no exception and, in response to this need, have increased the use of objective outcome data assessment procedures. In addition, many clinics are also including subjective outcome scales to assess how the patient views achieved benefit from amplification devices. These measures attempt to identify the client's specific needs at the start of the rehabilitation process and then determine how well those needs have been met at the end of the program.

TABLE 1 • COSI FORM


COSI
The NAL Client Oriented Scale of Improvement
SPECIFIC NEEDS
Indicate Order of Significance
oticon

Outcome scales have most typically been used with hearing aid patients. However, determining patient benefit may be especially necessary for patients considering cochlear implantation, where the cost for providing the device plus follow-up services are substantial. This becomes even more important as candidacy criteria are expanding to include severe-to-profound patients and "borderline" adult patients (i.e., those who get some open-set benefit from conventional amplification yet who report that their ability to communicate is severely limited or impaired).

Assessing both objective test data and subjective outcome information for each patient gives us a more powerful tool for determining improvement in their ability to communicate.

One such subjective outcome measure is the Client Oriented Scale of Improvement (COSI) (Table #1). It was developed and validated at the National Acoustics Laboratories (NAL) on patients fit with conventional amplification. Rather than being constructed in a 25 or 50 item questionnaire format, it allows the client to identify and rank order the 4 or 5 goals of greatest importance to them. It was believed that utilizing goals established by the patient would provide a more realistic and measurable assessment of improvement for the individual client, i.e. assessing whether specific needs of the client were met. An assessment tool based on specific needs of individual clients seemed an ideal tool for application to cochlear implant patients.

The following three cases illustrate the value of the COSI outcome scale used with cochlear implant patients.

Procedures

Pre-operatively, aided and unaided threshold testing and measures of open-set, auditory only, speech perception ability (i.e., spondee recognition test, CID sentences, and monosyllabic word tests) were administered to each patient. Other tests were selectively administered in the pre-operative evaluation, but only the three tests previously mentioned will be used for comparison in this paper. Following test administration and counseling about rehabilitative options, the COSI was administered to each patient. They were instructed to identify 4 or 5 specific goals they hoped to achieve if they received a cochlear implant. Goals were to be specific and listed in order of significance to the client.

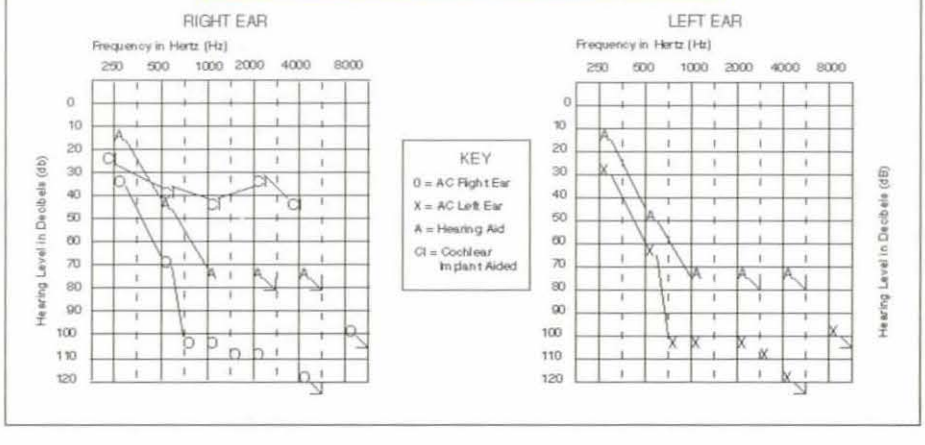
Both objective and subjective outcome data were obtained for each patient at post-operative intervals of three and/or six months post stimulation. Standardized testing was performed and compared in the best aided condition. The COSI data obtained included (1) patient evaluation of perceived "degree of change", reported as "no change", "slightly better", "better", and "much better"; and (2) quantification of "final ability", which refers to how often they can hear well in that specific situation. The patient is prompted with a time-frame of "hardly ever", "most of the time..." or with the percent rating. Results of both measures are compared for each patient.

Case 1 – EB

Background: EB had a progressive, severe-to-profound sensorineural hearing loss. The etiology was believed to be secondary to Lupus (Table #2). She had been wearing binaural amplification for six years and despite her better hearing in the low frequencies, she reported that her ability to communicate was severely limited. She was unable to communicate on the telephone, unable to hear her husband whose voice was weakened by cancer, and unable to participate in social situations without lipreading. Despite her borderline test results (auditory-only CID sentences score of 46%), the decision was made to implant her right ear. Her COSI goals were (1) hear her husband's weak voice, (2) hear on the telephone, (3) hear speech in groups, (4) hear TV, and (5) enjoy music.

Results: Objective test scores were obtained at 3 months post stimulation, and are reported on Table #3. She achieved a monosyllabic word recognition score of 64% and a CID sentence score of 96%. While

TABLE 2 • EB AUDIOGRAM



Submitted by *Marsha Simons-McCandless* and *James Parkin*, University of Utah Medical Center, Salt Lake City, Utah

TABLE 3 • EB TEST RESULTS

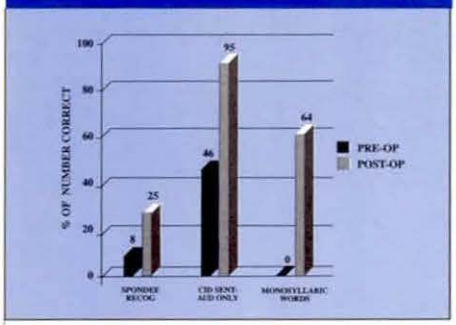
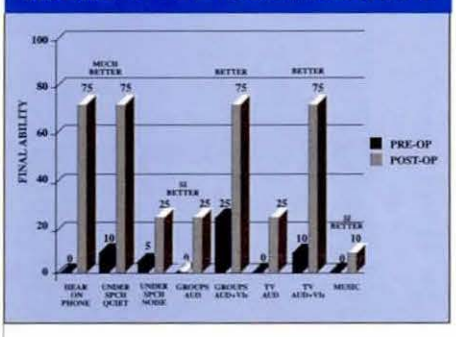


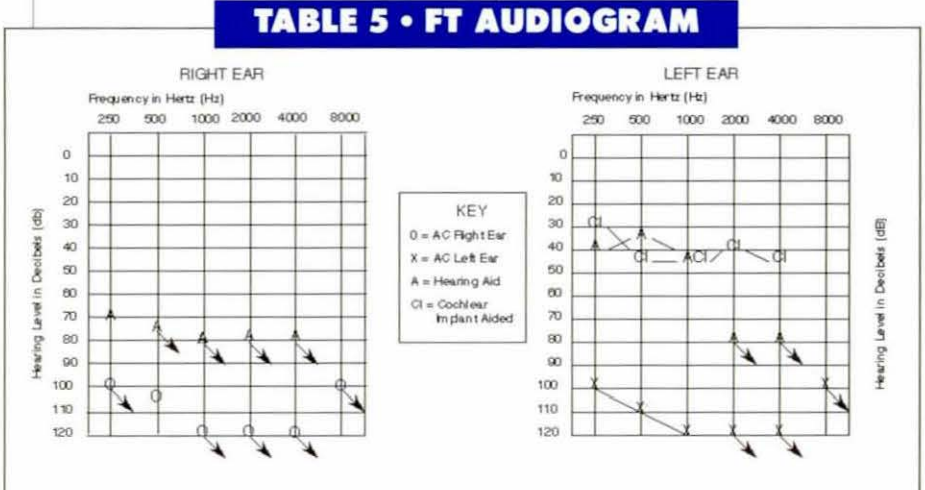
TABLE 4 • EB COSI ABILITY



these scores are excellent examples of auditory only performance, the numbers don't detail the impact of the cochlear implant on her quality of life. The COSI provides the kind of information that confirms the amount of benefit received by the patient.

Results of the COSI scale are shown on Table #4. The patient indicated her most important objective from cochlear implantation was to be able to communicate with her dying husband and understand voices on the telephone. She reported that both skills were "much better". She was now able to have meaningful conversations with her husband before his death, and understand 75% of what he said. Prior to implantation, she could only understand about 10%. Her improved word recognition skills also allowed her to feel independent in her telephone communication. She reported she can now understand about 75% of telephone conversation, and routinely carries on lengthy conversations with hardly a word missed. She reported that her communication ability since implantation resembles the time when she had only a mild hearing loss. She forgets she is deaf until she removes the device at bedtime.

TABLE 5 • FT AUDIOGRAM



CASE #2 - FT

Background: He had a progressive sensorineural hearing loss, profound in the right ear and severe-to-profound in the left ear, resulting from otosclerosis (Table #5). He began wearing amplification in 1966, but discontinued use of the hearing aid in the right ear, reporting that he failed to receive any auditory percept and experienced only pain from auditory stimulation in that ear. Initially, he was interested in receiving a cochlear implant for the right ear and would continue to use his hearing aid in the left ear. However, radiological studies revealed significant cochlear anomalies of the right ear, which ruled out implantation in that ear. The patient chose to have a cochlear implant for the left ear, despite testing which revealed some preoperative benefit from a conventional hearing aid. His perception was that despite scores achieved in a quiet sound room, his communication abilities in real life were significantly impaired unless visual cues were available.

TABLE 6 • FT TEST RESULTS

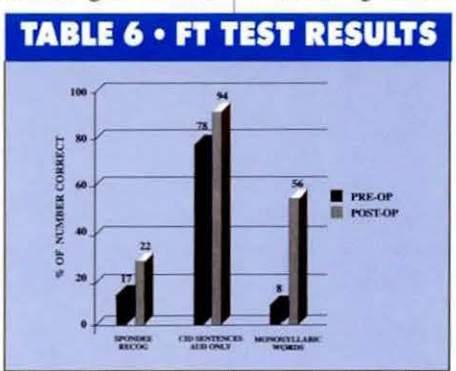


TABLE 7 • FT COSI ABILITY

Prior to implantation, the COSI was administered and goals were as follows: (1) understand his wife in the car; (2) better understanding of TV and radio; (3) hear in social situations; and (4) hear on the telephone. It was especially important for him to hear his wife while driving in the car. Since his retirement, they traveled extensively by car and he was unable to understand her unless he was a passenger and could utilize visual cues to augment auditory information.

Results: His aided objective test results, obtained at 3 months post stimulation, are shown on Table #6. He achieved a monosyllabic word score of 56% and a CID sentence score of 94%, both demonstrating excellent performance. But, unlike the COSI, the scores do not specify those situations where the implant has significantly improved his quality of life.

Results obtained on the COSI are shown on Table #7. He reported that he can now understand at least 50% of conversation with his wife while riding in the car, without the need for visual cues. In fact, he was able to achieve this goal on the day of his initial stimulation. They reported that they drove around in the car for 2 hours, chatting like they did before he lost his hearing. He can

TO ALL FELLOWS OF THE AMERICAN ACADEMY OF AUDIOLOGY:

As organizers of the XXIV International Congress of Audiology to be held in Buenos Aires from August 30th to September 3rd, 1998, we would like to invite everyone interested in this field to participate in this meeting. In a planet where everything is being globalized, events like these are an excellent opportunity to meet and exchange ideas, and to teach and learn from colleagues from all over the world.

The scientific program includes round tables and/or symposiums on the most relevant topics nowadays: Otoacoustic Emissions, chaired by D. Kempf; Cochlear Implants, by M. Manrique; Audiology and Basic Science for The Third Millennium, by J. Miller; Pharmacological Treatment of Sensorineural Hearing Loss, by J.M. Aran; Epidemiological Aspects of Hearing in Developing Countries, by G. Mencher; Tinnitus, by J. Hazall; Newest Developments in Hearing Aids, H. Verschuure. There will also be an extensive program of free papers and poster sessions.

Buenos Aires, founded at the end of the XVI Century, is today one of the most important cultural centers in South America. This beautiful city is always a surprise for its first time visitors, due to its buzzing activity and cosmopolitan charm. Also unexpected are the wide boulevards, exclusive shops, European ambiance, green squares and streets full of charm that invite you to stroll around. A great variety of theaters, Opera House famous world wide, art galleries, book shops and entertainment are accessible including several places where the oldest argentine dish: "asado" (barbecue gaucho style) may be tasted, as well as many restaurants offering a wide variety of regional dishes.

As multifaceted as Buenos Aires is, the huge hinterland with the huge and famous Iguazu waterfalls, forests, the Andes Mountains with eternal snows, the green Pampas and the still wild Patagonia, where on the coast you can watch hundreds of whales that arrive to mate every year. Seals, penguins and the only continental colony of sea elephants in the world, make Valdes Peninsula the animal lover's paradise. This is just a preview of what can be discovered in our country.

We hope you will make plans to join us at this important International Congress of Audiology.

For More Information Contact:
General Secretariat
Congresos Internacionales, S.A.
Moreno 584, Piso 9
(1091) Buenos Aires, Argentina
Tel: (54-1)342-3216 / 342-3283
Fax:(54-1)331-0223 / 334-3811

Jorge Schwartzman, M.D.
President,
International Congress of Audiology

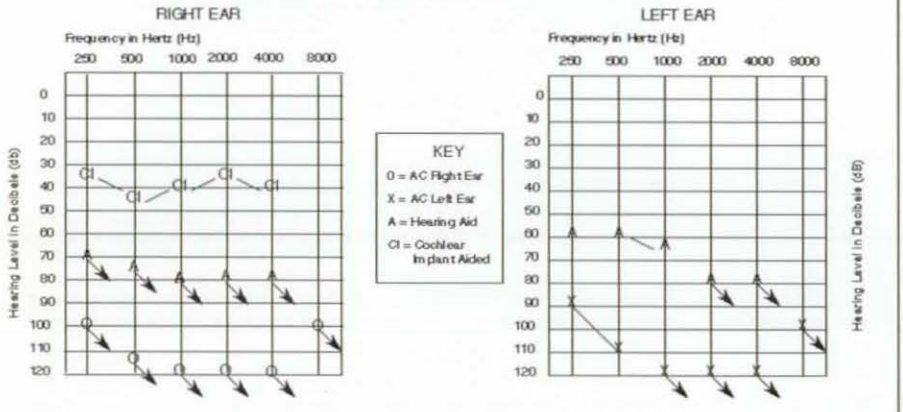
XXIV INTERNATIONAL CONGRESS OF AUDIOLOGY

also understand about 90% of conversation on the telephone if the speakers uses a slower rate of speech. This patient rated social communication as an important goal. He indicated that 75% of the time he can communicate successfully in social situations, such as church gatherings and SHHH meetings. Prior to implantation, he stayed home and retreated from social interaction. Now, when his device is not working optimally, his wife reports that he reverts to previous asocial behavior until he can be retuned.

friends. In recent years, they had to write to communicate most of the time, and she was withdrawing from social situations as well.

Results: Data was obtained at 3 months post stimulation. Her post-operative aided scores are shown on Table #9. They reveal a score of only 16% on monosyllabic words and 63% on CID sentences. These scores alone might suggest limited or marginal performance, yet COSI data clearly demonstrated how the cochlear implant has improved her quality of life.

TABLE 8 • ED AUDIOGRAM



Case #3 - ED

Background: This patient had a progressive bilateral sensorineural hearing loss since 1955, with etiology unknown (Table #8). She wore binaural hearing aids until two years ago when her hearing suddenly dropped to a profound degree in her right ear. Since that time, she has been wearing a hearing aid in the left ear only. Even with the addition of visual cues to audition, she was only able to identify 54% of the words on the CID sentence test. Her communication goals for cochlear implantation were as follows: (1) communicate better with her husband; (2) be able to teach Sunday School classes; (3) understand movies and TV; and (4) improve group communication. Her primary goal was to improve her hearing to a degree that she could communicate with her husband and

Results of the COSI are shown on Table #10. She reported that she could now communicate with her husband 90% of the time with minimal errors in understanding. He can even ask her questions when across the room or behind her - an ability not possible for the past 25 years. Her husband now calls her "motor mouth" and indicated that the cochlear implant has given him back his best friend. He doesn't even mind that their telephone bill has tripled. Her social communication was also reported as "much better", with an 80% ability to successfully communicate. Since her ease of communication had improved so dramatically, her participation in social activities has likewise increased. She now attends lectures regularly and participates in church activities. Her life has changed substantially.

TABLE 9 • ED TEST RESULTS

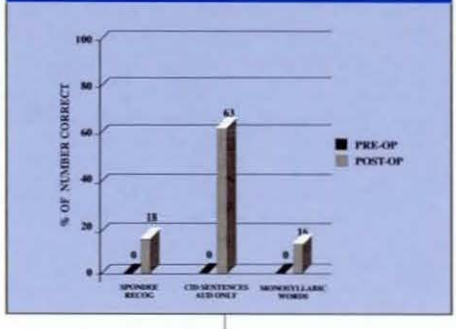
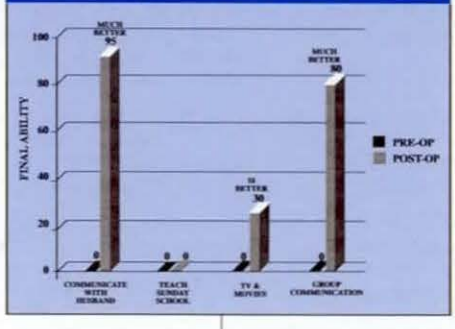


TABLE 10 • ED COSI ABILITY



Summary

All three patients presented demonstrated significant improvement in speech perception skills following cochlear implantation as demonstrated by test results on standardized test materials. These patients preoperatively functioned as deaf , i.e., deriving little or no benefit from auditory stimulation. However after implantation, they function as though only minimally hearing impaired. This massive change in function, as shown on objective tests, would be impressive by itself. Coupled with subjective outcome data, is even more impressive.

Standardized test scores are essential for charting progress. However, when patients have lower than "star performer" test results, we are tempted to interpret that to mean that the patient functions marginally and thereby derives minimal benefit. In many cases, that could not be further from the truth. Consider the example of ED. Her monosyllabic word recognition score was only 16%, yet on the COSI she indicated that her communication with her husband (her primary goal) was improved 90%. She is now able to carry on face to face conversation with him with virtually no errors in comprehension.

This difference between standardized test results and reported benefit strongly suggests the need for use of the COSI subjective outcome scale. This tool allows patients to personalize their goals and progress. Both high performers and low performers have different needs, objectives and lifestyles. The COSI is designed to extract those specific needs and provide subjective outcomes to accompany the results on the standard test measures. The use of both procedures is therefore recommended to assess true benefit in patient quality of life.

CLASSIFIED ADS

LOS ANGELES:

Busy West Los Angeles private practice needs Audiologist with a minimum of 2 years experience. Interest and experience in dispensing important. Extensive use of digital and programmable hearing aids. Call W. McFarland, Ph.D. at (310) 477-1519 or send resume to: The Hearing Center, 11600 Wilshire Blvd., Suite 114, Los Angeles, CA 90025

AUDIOLOGY POSITION:

Immediate opening available for part time audiologist in a busy, three physician ENT practice. Responsibilities will be shared with one other audiologist and include adult and pediatric diagnostic testing, ABR, ENG and hearing aid dispensing, including some programmables. This position requires CCC-A, Virginia audiology license and Virginia hearing aid license. Salary and benefits negotiable and commensurate with experience. Hours flexible. Please send resume to Melissa Albright, M.A., F.A.A.A., Southside Head and Neck Surgery, 406 North 6th Avenue, Hopewell, VA 23860; Fax (804) 452-2176.

AUDIOLOGIST:

Dispensing Audiologist needed for a growing multi-office practice established since 1970. Full or part-time positions available throughout the western United States. CCC-A preferred, but will consider a CFY (sup avail.). All positions offer a rewarding and innovative work environment with opportunity for professional growth. Send or fax resume and reference to Newport Audiology Centers, Attn: Karen Schaefer, 26137 La Paz Road, Suite 104, Mission Viejo, CA 93691, Fax (714)470-6135, Phone (800) 675-5485 or (714) 581-5206 ext 122.

FULL-TIME AUDIOLOGISTS:

The Division of Audiology, Department of Otolaryngology-Head and Neck Surgery is seeking applications for immediate openings for full-time audiologists. Candidates must have, at minimum, a Master's degree, CCC-A and five years of clinical experience. For this position preference will be given to applicants with demonstrated experience in infant hearing screening and/or hearing aid dispensing. Salary and benefits are highly competitive and dependent upon qualifications. Letters of inquiry and curriculum vitae should be forwarded by mail or fax (313-876-7263), or e-mail (garyj@neuro.hfh.edu) to: Gary P. Jacobson, Ph.D., Director, Division of Audiology, Henry Ford Hospital, 2799 West Grand Blvd., Detroit, MI 48202.

AUDIOLOGY:

Assistant/Associate Professor; twelve-month, tenure-track faculty position. Responsibilities include instruction; supervision, on-going research productivity; student advisement; and departmental and university governance. Base salary is competitive and commensurate with experience. Private practice plan and grant incentive supplements are negotiable. Required qualifications include earned doctorate from a regionally accredited institution; CCC-A. Preferred qualifications include demonstrated success in securing research funding; graduate teaching experience; publication record; clinical experience. Position available January 1, 1998. Applications will be accepted until the position is filled. Review of applicants will begin November 1, 1997. Send letter of interest along with vita, and request that three letters of recommendation be forwarded to: William H. Ahaus, Ph.D., Search Committee Chairman, Dept of Communication Sciences and Disorders, The University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190 EEO/AA.

AUDIOLOGIST WANTED:

We are a private ENT practice in Northern Arizona, and would like to hire a full-time or part- time audiologist. Salary and hours negotiable. We also provide opportunities to complete a Clinical Fellowship Year - audiologist available for supervision. Call (520) 714-1531.

DISPENSING AUDIOLOGIST:

Wanted for full-time position in Lake Tahoe, CA and Gardnerville, NV. Audiometrics, impedance, ENG, ABR. Hearing aids including programmable. Excellent working conditions and equipment. Candidate must be CCC-A, independent, and highly motivated to meet the needs of this busy, two ENT practice. Outstanding salary, benefits, plus commission on hearing aids. Minutes from world class skiing, biking, hiking, fishing. Fax resume to (916) 541-1694 or call (916) 541-3338 to schedule a phone interview.

UNIVERSITY OF UTAH:

Position Available: Assistant Professor, Audiology, PhD, CCC/A. Nine-month, tenure-track beginning 9/15/97. Position and funding approved. Must demonstrate expertise in one or more of the following areas: hearing aids, electrophysiological tests, physiology and anatomy of hearing. Duties include teach two courses/qtr, conduct research in areas of interest, and advise graduate students (including PhD). Send letter of application, current CV, and three letters of reference to Lynn S. Alvord, PhD, Chair, Search Committee, Dept. of Commun. Disorders, 1201 Beh Sci. Bldg., University of Utah, Salt Lake City, UT 84112. Applications will be reviewed beginning 9/1/97 and will continue until position is filled. The University of Utah is an EQ/AA employer and encourages applications from women and minorities, and provides reasonable accommodation to known disabilities of applicants and employees.

CERTIFIED DISPENSING AUDIOLOGIST:

FT position w/established offices in Pacific NW, to dispense hearing aids and perform ENG/ABR. Retail/dispensing experience a must. Base, plus commission and benefits. Qualified candidate contact Director of Audiology by fax to set up a phone interview (360) 736-2928.

ANTICIPATED POSITION VACANCY

...starting August 23, 1998 at The University of Connecticut, Communication Sciences Department:

The anticipated position is for an Assistant Professor in Audiology at a CAA accredited program. The qualifications are: a doctorate with major emphasis in amplification and sensory devices. Interests in adult amplification, cochlear implants and adult diagnosis. Demonstrated independent research. CCC-A preferred. Teach at the undergraduate and graduate levels, supervise doctoral student research, advise undergraduate and graduate students, conduct an active research program. This is a tenure track, 9 month academic year position. The salary is competitive and dependent on qualifications. Applications should include a letter of interest, curriculum vitae, three letters of recommendation and reprints of selected publications. Interested applicants should apply to: Antonia Brancia Maxon, Ph.D., Chair, Search Committee, Communication Sciences, U-85, 850 Bolton Road, University of Connecticut, Storrs, CT 06269-1085, (860) 486-3687. The application deadline is December 15, 1997. Representatives of the program will be available at the ASHA Convention Employment Center in Boston, MA.

AUDIOLOGISTS:

San Diego, Audiologists, Immediate FT position available. Dispenser, ABR/ENG, programmable experience a must! Only dynamic and highly motivated need apply. Competitive salary, excellent benefits. Send resume and references to: Coburn Hearing Associates, ATTN: Patricia Coburn, 8939 La Mesa Blvd., #5, La Mesa, CA 91941, (619) 589-5414 or fax (619) 589-7391.

ASST PROF AUDIOLOGY:

A tenure-track position is available in the Department of Hearing and Speech Sciences (ESB- CAA accredited) at the University of Maryland, College Park. Qualifications: earned doctorate in audiology, hearing science, or related area required; teaching experience and post-doctoral training preferred, CCC-A desirable. Applicants should demonstrate a publication record and favorable teaching evaluations. Expertise preferred in electrophysiologic diagnostic measures and amplification, with demonstrated potential for developing an independent research program. Responsibilities: conduct research, teach undergraduate and graduate courses in electrophysiologic measures, hearing aids, etc., mentor graduate students in research projects, and participate in departmental activities. Salary is negotiable, depending upon qualifications and experience. Starting date: August, 1998. The department offers BA, MA, and PhD degrees and is the largest communication sciences and disorders program in the state of Maryland. Review of applications will begin on January 2, 1998, but applications will be accepted until position is filled. Please send letter of application, curriculum vitae, transcript of graduate studies, reprints of publications, and 3 letters of recommendation to: Sandra Gordon-Salant, PhD, Chair, Search Committee, Dept Hearing and Speech

CLASSIFIED ADS

Sciences, University of Maryland, College Park, MD 20742. Send e-mail inquiries to SGORDON@bss1.umd.edu. The University of Maryland is an Equal Opportunity/Affirmative Action employer. Minorities are encouraged to apply.

AUDIOLOGIST:

The Department of Speech-Language Pathology at Duquesne University offers a 12-month tenure-track faculty position in audiology available July 1, 1998. This is a newly created (established September 1996) and expanding 5-year Master's program in Speech-Language Pathology. The program is located within an extremely well supported and dynamic school of Health Sciences. Applicants must have an appropriate doctorate, hold the CCC-A, and be eligible for Pennsylvania state licensure. We are seeking an individual with clinical and teaching interests in basic diagnostics and aural rehabilitation, although all interested candidates are encouraged to apply. Duties will include teaching, coordinating the audiology experiences for the speech-language pathology students, and supervising in our in-house audiology clinic. Duquesne University is a progressive private Catholic University with approximately 9,700 students from over 50 countries (http://www.duq.edu). Additional information may be obtained by contacting Dr. Susan Felsenfeld at felsenfeld@duq.edu. Review of candidates will begin December 1, 1997 and will continue until the position is filled. To be assured consideration, please apply before January 15, 1998. AA/EOE

ASSISTANT OR ASSOCIATE PROFESSOR IN AUDIOLOGY:

Department of Audiology and Speech Sciences, Purdue University, West Lafayette, IN 47907. Tenure track 10-month position available August, 1998. Ph.D. required. CCC-A or equivalent clinical experience required. Duties include teaching undergraduate and graduate clinical audiology courses and pursuing an active program of research. Teaching needs include electrophysiology, pediatric audiology, and aural rehabilitation. A CV, letter of application, selected publications/papers, and three letters of recommendation that address the candidate's abilities in both teaching and research should be sent to: Glenis R. Long, Ph.D., Chair, Audiology Search Committee, Department of Audiology and Speech Sciences, Heavilon Hall, Purdue University, West Lafayette, IN 47907-1353. To be assured of full consideration, applications should be received by January 5, 1998. However, applications will continue to be accepted until the position is filled. Purdue University is an Equal Opportunity/Affirmative Action Employer.

CLIN. SERVICES SPECIALIST:

Cochlear Corporation, the world leader in cochlear implant technology, is currently hiring for a Clinical Services Specialist. The successful candidate will have high technical skills to assist training new staff with product use. Technical skills will also be utilized when offering support to patients, audiologists, engineers, and other staff members. Perform periodic quality testing on products and follow up with written reports for other centers. Assist with organizing audiologist workshops, and presenting lectures when appropriate. Computer familiarity is needed as candidate will be required to teach new hardware/software at workshops. Qualifications include a Master's Degree with Certificate of Clinical Competence in Audiology. Minimum 2 years of general clerical experience and 2 years clinical experience with cochlear implants. Please respond to: Dan Kerstein, Human Resources Consultant, 9332 E. Jewell Circle, Denver, CO 80231.

POSITION ANNOUNCEMENT

American Academy of Audiology - Executive Director

The American Academy of Audiology (AAA), a dynamic, 10-year-old membership organization, is seeking a full-time Executive Director to provide administrative and managerial oversight. The Academy is a 501(c)(6) organization with approximately 6,500 members. The National Office is located in the metropolitan Washington, DC area. AAA provides a full range of member benefits including publication of a scientific journal and member bulletin, development and administration of an annual convention which includes a substantial trade exposition, provision of multiple continuing education programs, on-going development of a member credentialing program, and governmental relations/ lobbying activities. The annual budget is approximately $2.8 million. Management of the Academy is currently provided by Association Management Group (AMG). The Academy intends to transition to self-management in the future.

The successful candidate must have previous association management experience. The individual selected must have the ability to understand the mission and objectives of AAA and to recognize and respond to the professional issues relevant to members. Experience as an Executive Director in a related field is highly desirable.

Specific selection criteria for this position include:

1. Experience in association management, especially in an Executive Director or Associate Executive Director capacity.
2. Competence in non-profit financial planning (budgeting), control, and reporting.
3. Experience in meeting-management and with large annual conventions and expositions.
4. Experience in staff selection, management and coordination.
5. Ability to work effectively with a volunteer Board of Directors and multiple committee chairs, and to represent the Academy to members, related professional associations, and regulatory and governmental agencies.

In collaboration with AMG, the Executive Director will have primary responsibility for seamless transition of the Academy from Contract to self-management; previous experience with similar transitions is highly desirable.

For further information or to apply, contact: J. Bruce Wardle, CAE; AAA, 8201 Greensboro Drive, Suite 300, McLean, VA 22102.

Closing date for applications is Nov. 30, 1997.

CLASSIFIED ADS

AUDIOLOGIST AUDITORY-VERBAL THERAPIST

The CENTRAL SPEECH AND HEARING CLINIC is a progressive, dynamic, independent, AUDITORY-VERBAL Clinic located in the Victoria General Hospital. The Clinic provides auditory-verbal therapy, aggressive audiological management, parent guidance and educational consultation for hearing-impaired and deaf children from 0-18 years of age. This Clinic is a nationally respected facility and an emerging leader in cochlear implant habilitation.

We seek a full time Audiologist/Auditory-Verbal Therapist. The position involves the provision of direct auditory-verbal therapy to hearing-impaired children and their families. The appropriate individual must therefore have a keen interest in aural habilitation. The position also involves hearing aid fitting, evaluation, verification, as well as work with cochlear implants, including assessment regarding candidacy, programming and habilitation. This is a unique opportunity in Winnipeg, Manitoba, Canada.

Ideal Qualifications: A Master's degree in Audiology. Professional associations eligibility required. Recent graduates as well as experienced professionals are invited to make application.

Please apply in writing with full resumé and references to:

Teresa Caruso, MSc(A), Aud(C), CertAVT, Clinical Director
The Central Speech & Hearing Clinic, 2340 Pembina Hwy., Winnipeg, MB R3T 2E8

AUDIOLOGIST/RN

NEUROPHYSIOLOGY SPECIALTY

As the premier provider of pediatric healthcare services on the West Coast, Children's Hospital San Diego is proud of its comprehensive, community-based programs. We currently have an opportunity for a self-motivated Audiologist or RN with OR experience to work independently as well as in cooperation with other team members.

To qualify, you should have 3-5 years of multi-modality evoked potential intraoperative monitoring experience OR 3-5 years of somatosensory evoked potential intraoperative monitoring experience. Additionally, you should have 1-3 years of newborn hearing screening experience utilizing evoked potentials and 1-3 years of multi-modality diagnostic experience with evoked potential testing for outpatients and trauma. Extreme flexibility to work effectively in an often hectic, fast-paced environment is essential.

Join us and enjoy our highly competitive compensation package, supportive team environment and beautiful location in "America's Finest City." To learn more, please call (800) 869-5627 or (619) 576-5827 or write today for an application: Children's Hospital and Health Center, Human Resources, 3020 Children's Way, San Diego, CA 92123. An Affirmative Action/Equal Opportunity Employer.

Children's Hospital San Diego

FOR THE SPECIAL NEEDS OF KIDS

MICHIGAN

CHIEF OF AUDIOLOGY

Tenure Position. The Department of Audiology at Wayne State University, Detroit, Michigan, is seeking an audiologist to head clinical and investigative programs of a large academic medical center. The individual must demonstrate experience and capability in supervising and performing clinical audiological and vestibular services. Academic appointment, tenure opportunity and compensation will be related to training and experience. Candidate of choice must be CCC-A accredited, possess a Ph.D. degree, and have 5-10 years experience in Administration and Leadership.

Kristin Vaillant, Search Consultant
Aegis Group
23875 Novi Rd., Novi, MI 48375.
Phone (248) 344-1450. FAX (248) 347-2231.
E-mail resume@aegis-group.com

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Available in a light tan color. Quick Check fits perfectly into a purse or pocket. Plus, its unique design provides a special compartment for our Spin Packs. Of course, Quick Check is also a fast and easy way to test hearing aid batteries.

For ease and convenience, it's an open and shut case.

Energizer brand Battery

NEWS & ANNOUNCEMENTS

PC-BASED HEARING IN NOISE TEST (HINT) NOW AVAILABLE

The PC-based "Hearing In Noise Test for Windows (HINT/Windows)", developed at the House Ear Institute in Los Angeles, utilizes sentences, speech-spectrum noise and spatial separation concepts to evaluate a person's ability to understand speech in simulated everyday listening conditions.

HINT/Windows permits automated administration, scoring, reporting and data management of the Hearing In Noise Test as well as routine audiometric testing. The test uses a proprietary digital signal processing card which can be installed easily in most personal computers running Windows 95. The data management features of the HINT/Windows enables a platform for organizing and storing information about each individual tested, providing a system suitable for conducting clinical trials. Finally, HINT/Windows has an added feature which permits the use of simulated gain functions allowing the examiner to judge whether abnormal HINT scores have the potential for improvement by the use of hearing aids.

The Hearing In Noise Test in the CD version and the HINT/Windows version is superior to existing speech in noise tests in several important ways.

Extensive normative testing has been completed enabling the development of statistically significant confidence limits facilitating the interpretation of test results. The normative data, which includes test-retest reliability data for repeated measurements, facilitates the use of the HINT scores in several different ways:

- Evaluating hearing handicap by comparing scores to normative data.
- Measuring benefit by comparing unaided to aided scores.
- Comparing hearing aid fittings, for example, monaural versus binaural or different frequency responses.
- Substantiating complaints of the inability to hear in noise that are not supported by audiometric data.
- Using as an excellent counseling and educational tool.
- Using in hearing aid troubleshooting by looking at the performance measures with noise on either side of the patient.
- Using sentences, spectrally matched noise and different azimuths. Sentences relate to every day experiences much better than single words. In addition, the noise signal used to mask the sentences has the same spectral content as the speech making it much more realistic and representative of real-life situations.
- Allowing testing with background noise at different azimuths which often reveals unilateral impairment which is missed with standard testing.

HINT uses an adaptive method to measure the signal-to-noise ratio at which the listener responds correctly 50% of the time. This avoids the ceiling effects inherent in traditional word-identification tests where the measurement criterion is the percent of words correctly identified.

To obtain more information on the Hearing In Noise Test and HINT/Windows, please contact Michael Block, Director of Customer Service at Starkey Laboratories (800-328-8602).

CONTINUING EDUCATION

1997 Continuing Education Passport Summary

Have you gotten your Continuing Education AAA Passport stamped this year? Here is a brief travel log of the destinations we covered this year:

Destination: Boston. Perfect weather, perfect location and absolutely perfect programs according to the evaluation forms returned by attendees. The "Issues in Reimbursement & Professionalism: From Managed Care to Medicare" course, by Barry Freeman and Robert Glaser with Brian Smith, President & CEO of B. Castle Smith & Company, who provided each attendee with a complimentary copy of his recently published book, *Embracing Change: How to Survive...And Thrive...In Managed Care 1997.*

The 18 exhibiting companies gave the attendees a chance to network, and provided exposure to the latest in industry developments.

Francis Kuk and Michael Block were the featured speakers in Michael Valente's course entitled, "Amplification: Approaches in Assessment & Technology".

Noel Matkin and Mary Pat Moeller presented "Pediatric Amplification & Habilitation" and Ted Glattke and Martin Robinette covered "Clinical Applications of OAEs."

Destination: New Orleans. Hot jazz, hot food and hot topics described this year's Fall Program.

Barry Freeman and Robert Glaser gave an excellent encore performance with help from Brian Smith and Chad Jorgensen.

M. Charles Liberman presented his research entitled, "The olivocochlear system and protection from acoustic injury: acute versus chronic effects." Kris English and Karen Anderson presented "Educational Audiology: Best Practices in the School Setting." Neil Shepard presented "Assessment & Management of the Balance Disorder Patient".

Special recognition goes to AAA's "tour directors," Robert Keith, Lisa Hunter, and Sharon Fujikawa, who developed the programs for this year's Passport destinations. Be on the lookout for next year's continuing education offerings in the 1998 Continuing Education Passport.

Destination: San Diego. November 7 and 8, 1997.

C A L E N D A R

Occupational Noise Exposure & Hearing Conservation: Advanced Course
November 1, Phoenix, AZ; **November 22,** Atlanta, GA; **December 13,** Houston, TX; **December 20,** San Antonio, TX
Precision Hearing Conservation, Contact: John Elmore 800/357-5759

14th Annual Amplification Symposium
November 1
Irvine, CA; Newport Audiology Centers, Contact: Karen Schaefer 714/581-5206 ext. 122

Preparing for the Digital Age: Senso Dispenser Training
November 5, Ft. Lauderdale, FL; **November 5,** San Antonio, TX; **November 6,** Orlando, FL; **November 12,** Beltsville, MD; **November 12,** Milwaukee, WI; **November 12,** Minneapolis, MN; **November 18,** Cleveland, OH; **November 19,** Houston, TX; **November 19,** Columbus, OH; **November 19,** Wallingford, CT; **November 20,** Framingham, MA; **December 2,** Lexington, KY; **December 3,** Indianapolis, IN; **December 3,** Terrytown, NY
Widex Hearing Aid Co., Contact: Francis K. Kuk 630/357-3183

OSSPEAC 1997: A Celebration of Communication
November 6-7
Akron, OH; Ohio Speech Pathology & Educational Coalition, Contact: Cathy Bauer 800/424-7372

AAA West Coast Conference
November 7-8
San Diego, CA, AAA, Contact: Zane Kerby 800/222-2336 x213

1997 Noah & Oasis Software Training Seminar
November 7, Anaheim, CA; **November 14,** Boston, MA; **November 21,** Austin, TX; **December 12,** Raleigh, NC
Bernafon-Maico, Contact: Donna Haider 612/941-4200

Clinical Application of Distortion Product
November 7
Deerfield, IL, Bio-Logic Systems Corp, Contact: Kathy Murphy 800/323-8326

Otolaryngology Graduate Medical Education in Auditory Disorders Conference
November 11; December 9
San Antonio, TX, University of Texas Health Sciences Center, Contact: William Beck 210/567-5685

Computers In Hearing Care
November 14, Orange, CA; November 15, Pasadena, CA
HIMSA Inc., Contact: Peter Ketchum 612/644-2921

CONTINUING EDUCATION

C A L E N D A R

Hearing Aid Fitting '97
November 14-15, Golden Valley, MN; **December 12-13,** Sacramento, CA
Dahlberg, Inc., Contact: Michael Rosenblatt 800/234/7714, x686

ENG Course
November 14-16
Chicago, IL, ICS Medical Corp Peta Gates 847/397-2150

CAOHC Certification Course Schedule
November 19-21, Atlanta, GA; **December 10-12,** Houston, TX; **December 17-19,** San Antonio, TX
Precision Hearing Conservation Contact: John Elmore 800/357-5759

Advanced Hearing Aid Fitting Techniques
November 19
Boston, MA; Phonak, Inc. Dee Lower 800/777-7333

CAOHC Recertification Course
November 20, Atlanta, GA; **December 11,** Houston, TX; **December 18,** San Antonio, TX
Precision Hearing Conservation Contact: John Elmore 800/357-5759

Programmable and Digital Hearing Aid Fitting and Real Ear Measurement
December 6-7
New Orleans, LA Kresge Hrg. Research Lab., LSU Med. Ctr., Sharon DeLee Loeb 504/568-4785

Eliminating Acoustical Barriers to Learning in Classrooms
December 6-7
Los Angeles, CA Acoustical Society of America, Elaine Moran

Danasound and ScalAdapt Certification Training Program Course
January 29, 1998
San Diego, CA Danavox, Inc. Judy Aanestad 612/930-0416

AAA Future National Conventions
April 2-5, 1998 Los Angeles, CA; Dennis Van Vliet, Chair
April 29-May 2, 1999 Miami Beach, FL; Michael Dennis, Chair

microZoom™ AudioZoom

INTRODUCING MICROZOOM

MicroZoom is the world's first in-the-ear hearing aid with AudioZoom...the proven background noise reduction technology. The same technology that achieved such outstanding noise reduction performance[1] and customer satisfaction[2] in the AudioZoom instruments is in MicroZoom.

Preliminary measurements on KEMAR indicate an improved directivity index, and when clinical evaluations are completed, we expect the results will equal or exceed those achieved by AudioZoom.

THE ZOOM EFFECT

Each AudioZoom contains two precisely matched microphones. A tiny computer chip inside the instrument calibrates and analyzes sounds from both microphone inputs. By delaying the signals from the rear microphone it reduces or cancels the input signal from the sides and rear while it enhances the sounds from the front.

The result...better hearing performance in noisy situations and higher patient satisfaction. Two reasons to choose AudioZoom technology!

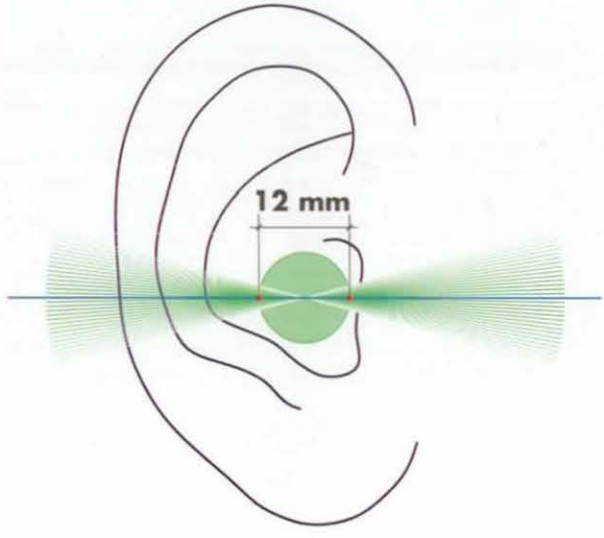
[1]Valente, Fabry & Potts "Recognition of Speech in Noise with Hearing Aids Using Dual Microphones." Journal of the American Academy of Audiology. Vol. 6, No. 6, November 1995.

[2]Kochkin S. "Customer satisfaction and subjective benefit with high performance hearing aids "The Hearing Review." Vol. 3, No. 12 1996.

12MM THE CRITICAL FACTOR

The distance between two microphone ports is one of the most critical design elements in a multi-microphone array.

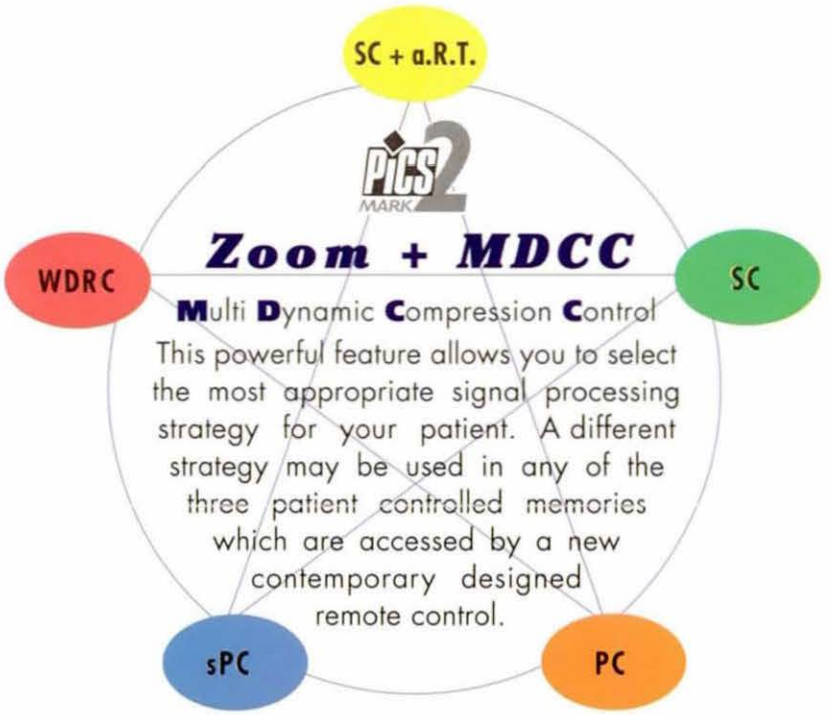
Research has shown the ideal distance to achieve optimal performance in-the-ear is 12mm (½ inch).



EASY TO FIT!

- > Quick-fit Algorithms in Phonak Fitting Guideline Software (PFG 5.0)
- > Fine Tuning and Customizing in Phonak Fitting Guideline Software
- > MicroZooms are programmed before leaving the factory

Technology in a Custom ITE



Multi Dynamic Compression Control
This powerful feature allows you to select the most appropriate signal processing strategy for your patient. A different strategy may be used in any of the three patient controlled memories which are accessed by a new contemporary designed remote control.

MICROZOOM FEATURES

- Fits Mild, Moderate and Severe Hearing Losses
- Flat, Sloping and Precipitous High Frequency Hearing Configurations
- Multi Dynamic Compression Control
- Telecoil is Standard and may be Customized
- Integrated On/Off Switch in Battery Door

MICROZOOM OPTIONS

- AudioZoom in the Start-up Program
- SlimLine Remote Control DHC-4
- Manual Volume Control
- Manual Zoom Switch

PHONAK

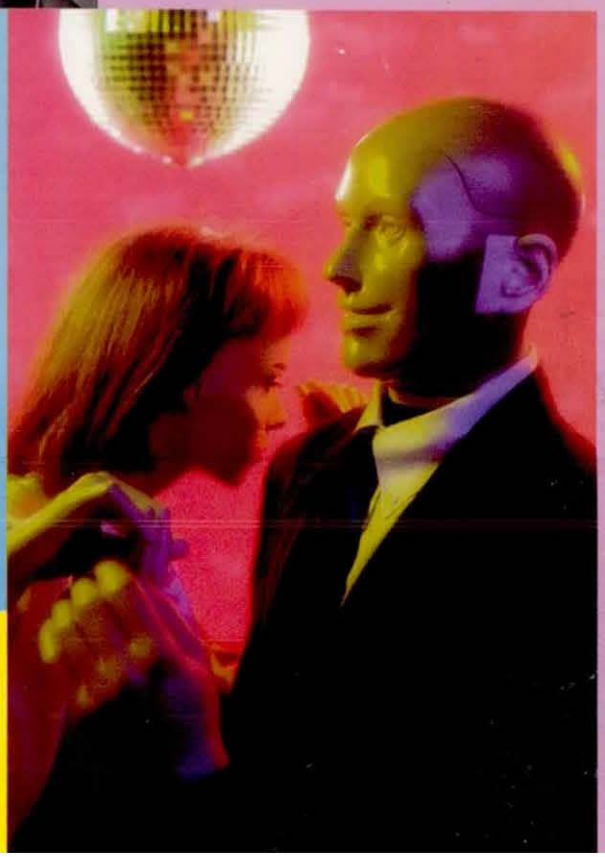
800-777-7333

Even the most "typical" wearers like what Sequel Custom Programmable can do for their lifestyle.

Now you can provide even the most "typical" patients with an ideal combination of superior sound quality and single and multi-memory digital programmability.

Starkey's Sequel family offers a growing selection of virtually distortion-free wide dynamic range amplification featuring independently-adjustable, single or multiple memory digitally-programmable parameters. Working with Starkey's Professional Fitting System, you have a versatile range of programmable instruments in the widest selection of sizes and styles. A fact that even the most "typical" patients will appreciate.

A675 Sequel | A13 Sequel | Sequel CE | Sequel CC | Sequel Tympanette



STARKEY LABORATORIES

hearing is our concern