

# Sound Advice

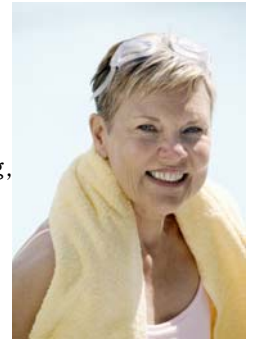
Summer 2007

Courtesy of Physicians Hearing Services

## Redefining Hearing Device Technology

Management of hearing loss, via an instrument of some type, has been an ongoing development through the ages. Technology continues to provide improvements in the way hearing loss is managed. As the industry moves into a world of high speed digital processing, new options and strategies are available to us and our patients.

These significant advancements in the way we amplify sounds and address hearing loss accelerated when hearing instruments went digital ten years ago. Now, hearing instruments are designed to evaluate and adapt to your environment, and help maximize speech cues. With open fitting design, frequency transposition, digital processing and, more recently, the introduction of Bluetooth, hearing instrument fittings are becoming easier.



**Open Fitting Design:** All hearing instrument fittings require some form of sound delivery to the ear canal. A non-occluding fitting minimizes how much the ear canal is blocked by the sound delivery system. The least occluding fitting delivers sound through a thin tubing that is attached to a behind-the-ear (BTE) style device. Providing amplification without creating occlusion offers the wearer a number of advantages, the most well-documented of which are better sound quality of the wearer's own voice and reduced gain at low frequencies for patients with good low frequency hearing.

**Frequency Transposition:** Here is an example of why this may be important to you: Those who have an unaidable high frequency hearing loss miss high-pitched sounds such as birds chirping, even with the use of the high-end digital hearing instruments on the market today. With Inteo™, from Widex, these sounds may once again be heard through the use of their *Audibility Extender*. This patent-pending feature shifts the high-pitched sounds such as a bird chirp to a lower-pitched sound so you may hear them. This feature, in effect, extends your range of hearing and works to let you once again appreciate what you have lost!

**Digital Processing:** Advancement in digital signal processing has changed considerably in the last three years. The improvement in digital signal processing has allowed directional technology to become more beneficial. Directional microphones offer improved speech understanding in noise and can be implemented into behind-the-ear and most in-the-ear models. By using various microphone arrays, hearing devices evaluate what is in the listening environment, and search for speech characteristics in noise. For example, the beam-forming microphone array is designed to sense noise from all sources and directions and adaptively change directional performance in response. They attempt to adjust sensitivity in response to the environment, identify and reduce common noise, and orient to new speakers, not just who you are looking at. In addition, hearing instruments are capable of determining and cataloging the various environments a wearer is in to make decisions on how to optimize the use of the directional technology.

**Bluetooth Technology:** Cell phone usage has remained a major problem for many wearers of today's most advanced hearing instruments. Cell phone manufactures were not required to provide compatibility with hearing devices. In addition, hearing instrument wearers who want to utilize MP3 players or other Bluetooth technology have to remove one or both of their instruments before placing a call or listening to music. Oticon's newest product, Epoq, solves this problem with a small, smart looking device that converts Bluetooth signals into the electromagnetic bit stream received by Epoq. This removes the need to attach any bulky Bluetooth devices to the hearing instrument itself. It also means that custom Epoq instruments can be Bluetooth enabled.



The technology of hearing devices changes rapidly, and these changes occur about every 3–5 years. The improvements in technology allow us to provide more appropriate access to sound to more individuals than ever before. If you are wondering whether your hearing needs can be met by the newest technology, or whether your current devices meet your needs, schedule an appointment with your Audiologist today.



Call us at 432-5973

## Custom Made Swim Plugs

Swim season is here, and it's the time to keep your ears dry during water activities. For those who are prone to outer ear infections (swimmer's ear), individuals who have had ear surgery for the placement of pressure equalizing (P.E.) tubes, and those who just want to keep water out of their ears, the best solution may be a set of custom swim plugs. There are a number of possibilities:

- ◆ An infinite number of colors and color combinations
- ◆ They float, so they are hard to lose
- ◆ Custom fitted to your ear

Ask your audiologist if this product would be appropriate for you.

Call us at 432-5973



## Summer Refreshment

Are your hearing instruments out of warranty and need to be checked and cleaned? This event is for you.

- ◆ **Free** cleaning of hearing instruments that are out of warranty – *a \$45 value*. This includes:
  - AuraCare service; Vacuuming the microphone port and receiver tubing; Electroacoustic Analysis of devices to verify they are working to specifications; Tubing replacement (applies to BTE devices); Cleaning battery contacts; Ultrasonic cleaning of earmolds (applies to BTE devices); and wax guard change. With this service we can let you know whether your instruments are working the way they should be, or if repairs are necessary.

This event takes place on **June 26 and June 28**  
Call now for your appointment time. **432-5973**

Offer not good with any other coupon. Limit 1 (one) per patient.

Expires June 28, 2007



## Summer Web Event

For our established PHS patients who are thinking it's time to order new hearing instruments, this event is for you! During

the months of June, July and August, if you purchase new hearing instruments, with the successful completion of a trial period, you will be given a certificate redeemable for two battery clubs or an iPod Shuffle™, an \$85 value - **Free!**

To participate in this event, you will need:

- ≈ A recent hearing evaluation (within the last year). If you need a new hearing evaluation, give us a call, and we'll guide you through the process of getting an appointment.
- ≈ A hearing aid evaluation with an Audiologist.
- ≈ Purchase and successful completion of trial period of new hearing instruments.

**Call us at (559) 432-5973**

Offer not good with any other coupon. Limit 1 (one) per patient  
Offer ends 8/31/2007



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*The Audiologists of  
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Mark G. Smith, Au.D., CCC-A

### Office Hours

- Scheduled appointments  
8 am - 5 pm  
Monday-Friday  
**closed 12-1**  
**(559) 432-5973**