BARRINGTON HEARING CENTER, LLC.

Newsletter Summer 2017

WHAT IS NEW IN 2017?

As in any year, the hearing aid industry continues to improve their circuits to address the concerns of the hearing impaired. The most common concern is the ability for the hearing aid to perform well in noisier environments.

1. ALL CIRCUIT LEVELS AND REMOTE CONTROL IN ALL HEARING AID STYLES:

2. CROS AND BI-CROS HEARING AIDS HAVE IMPROVED
   a. The CROS/BICROS hearing aids used with single-sided hearing loss are now available in a more stream lined style that offers good battery life.

3. IMPROVED UNDERSTANDING OF SPEECH IN NOISE:
   a. The newer circuits have been designed to present the clearest signal to the brain and to focus on the speech signal while reducing the background noise.
   b. It is important to know that no hearing aid circuit is on the market that will block ALL of the background noise. But, the degree of the reduction in background noise interference has vastly improved.

4. BLUETOOTH CONNECTIVITY:
   a. New circuits allow Bluetooth connectivity with cell phones, television without the need to wear an extra apparatus.
   b. One manufacturer's hearing aids can hear who is at the door and start your coffee maker in the morning, if you live in a "smart" home.

Please feel free to call the office at 847-382-5700 for more information.

Join the BATTERY CLUB and SAVE MONEY!

$30.00 entitles you to 36 batteries that you can either stop by to pick up or have mailed to your home.

THE ELEPHANT IN THE ROOM

There has been a great deal of press on the topic of the use of Personal Sound Amplifying Products(PSAPs) in place of hearing aids. One of the biggest differences is the fact that the FDA does not recognize PSAPs as devices for the hearing impaired. There are a great deal of other reasons and I have put together a chart to outline just some of the differences. The chart can be seen on page 2 of this newsletter.

If you find you have questions after you have read the chart, please feel free to contact me.

SUMMER TIPS FOR HEARING AID CARE

To avoid loss of to damage to your hearing aids follow these simple suggestions:

- Remove the hearing aids when working and exercising outside.
- Keep hearing aids protected in their case when not wearing them.
- Keep them away from hot/humid environments when out of ear.
- Check batteries for signs of rust. Discard if rust seen and clean battery door with rubbing alcohol on a swab.
- Do not apply or spray sunscreen near the hearing aids while they are being worn. It is best to apply sunscreen and then put on hearing aids.

9 OUT OF 10 CONSUMERS SAY HEARING AIDS HAVE IMPROVED THEIR QUALITY OF LIFE!

The Better Hearing Institute (BHI) surveyed more than 1500 consumers and found 85% of those surveyed stating that they are satisfied with the benefits they receive from their hearing aids.

BHI then looked into the reason for this finding. They believe the increasing use of digital technology in the modern hearing aids is the main reason. It was noted that the fitting of digital circuitry grew from 5% in 1998 to 90% in 2005.

The first fully digital hearing aid circuits were introduced in 1996 and were only offered at the highest cost level. Since that time the digital circuits have undertaken a multitude of advancements and are now offered at all cost levels.

The digital technology offers the following advantages over analog circuits.

- Advanced signal processing strategies that offer a better sound quality
- Noise and feedback reduction capabilities
- Greater flexibi9lity in shaping the hearing aid circuit to better meet the needs of the individual user.
- Advanced microphone arrays to assist in the reduction of interfering background noise.

LISTENING EFFORT

Hearing is the ability to detect sounds. Listening is the ability to hear sounds and give meaning to what you are hearing. The term "listening effort" refers to the amount of energy used to listen. As would be expected, we use more listening effort in noisy environments than in quiet. This effort can be measured both subjectively and objectively. Questionnaires are used for the subjective and pupil dilation and heart rate increases are used for the objective. The studies have found that an increase in listening effort causes fatigue, tension, decrease in recall and reaction time. The recent goal of many hearing aid manufacturers is to make circuits that reduce the listening effort for the users. This results in the user being less fatigued, frustrated or tense during and after conversations, as well as increase recall of the conversation.

CATEGORY	HEARING AIDS	PERSONAL SOUND AMPLIFYING SYSTEMS
FDA DEFINITION:	"A wearable sound amplifying device *intended to compensate for hearing loss*." It is considered a medical device and therefore providers must follow strict pre-fitting guidelines that include a full hearing test, advising the consumer that it is best to see a physician prior to the purchase of the hearing aid.	"A wearable electronic product *not intended to compensate for impaired hearing."* The FDA specifically stated that they are designed to be used by non-hearing impaired consumers to amplify sounds related to recreational activities.
EDUCATIONAL NEEDS FOR PERSONS SELLING:	The hearing health professionals fitting hearing aids are required to complete some form of education and hold state mandated licensing/certification because these are medical devices. Continuing education is required to maintain the licensing/certification. Audiologists hold post-baccalaureate degrees.	NONE. The PSAPs may be purchased online or in stores and sold by anyone.
QUALITY OF SOUND:	Hearing aids contain a much higher level of technology prescribed to treat a diagnosed hearing loss. With the use of computer chips and acting as a microprocessor, the hearing aid is able to reduce noise and distinguish the speech signal from the overall spectrum of sounds which facilitates speech perception. Most circuits include: background noise suppression, flexibility in adjusting to users needs, feedback reduction, directional microphones to focus on area of interest for user and multiple settings within the hearing aid that the user can access to use in different environments.	PSAPs are broadband devices that often have excessive internal noise with greater amplification in the low frequencies. They take in the surrounding sounds and amplify them equally. The amplifier does not have ambient noise reduction or feedback (whistling) reduction.
HEARING VERSUS LISTENING	Well fitted hearing aids use specific fitting rationales to create amplified sounds which provide the brain with abundant, natural acoustic information and allow the user to "listen". Listening is a highly sophisticated cognitive ability which involves attention, neural processing speed and quality, memory, language and more.* In other words, to listen is to extract meaning in the sounds that are heard. Human's ability to listen separates us from all other primates. *Beck, DL, Behrens, T. The Surprising Success of Digital Noise Reduction. *Hearing Review.* 2016;23(5):20.	PSAPs make the user hear everything louder. Hearing is the perception of sound and not necessarily the ability to understand words.
CONSUMER SUPPORT:	The hearing aids are fitted to your hearing loss and follow up visits are set for the fine tuning of the hearing aids. The hearing professional is available to problem-solve with you and offers validation and verification testing to show how the hearing aids are assisting you.	The PSAPs are sold with an instruction booklet and you set it up.
COMFORT OF FIT AND RETENTION IN EAR	Custom ear molds can be made, if the generic tips do not retain hearing aid in the ear.	PSAPs supply generic tips. If these do not fit the user's ear, they will be difficult to retain.