What's New at McNeill Audiology

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Technology Updates

Widex *"Clear"* – A New Family of Hearing Aids

written by Edward Storzer, M. Sc., Registered Audiologist

The Widex company has introduced a new line of hearing aids they call ***"Clear"***, which is available in all styles, and at three technology (and price) levels. These hearing aids are designed to provide the most natural sound possible for hearing aid users, and initial experiences have been positive.

Many features are integrated in the ***Clear*** hearing aids, including:

- speech enhancer to help focus on the dominant voice in a crowd,
- digital pinna to aid in sound localization,
- sound softener to control undesirable transient sounds,
- feedback cancelling to eliminate unwanted whistling,
- trusound compression to automatically improve hearing for sounds of any loudness, and
- audibility extender, to enhance high frequency hearing.

Widex ***Clear*** hearing aids have the zen option for people that would benefit from hearing soothing tones to provide sound relaxation or to aid in managing tinnitus. This zen program will play random harmonic tones in stereo, and we have found that some people who suffer with tinnitus find that using this program helps to ignore the tinnitus and improve concentration.

The Widex ***Clear*** hearing aids can communicate wirelessly with each other. This allows for improved adjustment to enhance speech and reduce noise in a variety of listening environments, better feedback control, and better ability to hear from different directions. In fact, the ***Clear*** hearing aid is available with a FreeFocus feature, which allows the user to focus on sound from the front, back, left, and right without having to turn their head – perfect for driving, for example.

The ***Clear*** hearing aids can be wirelessly connected to a remote control (to adjust volume and listening programs), to a television (with a transmitter attached to the TV), or a mobile phone (using Bluetooth technology).

A nice feature in the ***Clear*** hearing aids is the Smartspeak. A human voice (male or female) informs the hearing aid user which program they are on, when the battery is running low, and whether one of their hearing aids isn't on or not functioning.

The Widex ***Clear*** is available in custom in-the-ear styles, or a variety of behind-the-ear styles. One popular style of behind-the-ear is the ***Clear Fusion***, a receiver-in-the-canal aid that is smaller and often more natural sounding, especially for people with primarily high-frequency hearing loss. ❑

** Graphics provided by Widex Canada*

Hearing Aid Compatible Cell Phones

The ongoing issue of using a cell phone when you have a hearing aid continues. The Better Hearing Institute in Washington DC, as a service to hearing aid owners and hearing healthcare professionals has created a list of cell phones that are most compatible with hearing aids. By compatibility they mean that they carry the highest rating of M4/T4. Okay, that means:

- M4 indicates there is the least likelihood of microphone interference and

- T4 means there is the greatest likelihood of telecoil coupling compatibility with the cell phone.

This list doesn't guarantee that all of the cell phones on the list will work optimally with all hearing aid models but at least when you are shopping for a cell phone you have a good starting position. The good news is that the popular Apple iPhone 4 now has the M4/T4 rating. Check out: www.betterhearing.org/hearing_loss_treatment/cellphones.cfm

If you have difficulty looking up this link don't hesitate to make an appointment and discuss it with your audiologist. ❑

Progressive Tinnitus Management

written by Brent McNeill, M.A., Registered Audiologist

Tinnitus (pronounced either tin-EYE-tus or TIN-uh-tus) is a sound in your head which does not have an outside source, often described as a ringing, humming or buzzing. Approximately 10-15% of the population has permanent tinnitus. Almost everyone experiences short periods of loud tinnitus which goes away quickly. There is a great deal of ongoing research to find a cure for tinnitus but currently there is no cure.

People respond to tinnitus in different ways. Some people hear the tinnitus and it does not bother them; others find it extremely stressful and are looking to find something that can help them.

The Veterans Administration in the United States has been conducting research on tinnitus at least since 1980 when I was doing an internship at the Seattle VA hospital. The lead researcher, Dr. James Henry has developed a program for audiologists to help veterans with this problem. He makes it clear there is no cure for tinnitus but his therapy is designed to help people with tinnitus by changing their reaction to the sounds. He graciously shares his research and therapy methods. The reactions to the tinnitus are managed by using:

- Education
- Sound based methods
- Counseling

All of our audiologists have been to training sessions with Dr. Henry. We have started using some of his methods with clients who have found them helpful. His therapy is called Progressive Tinnitus Management because not everyone needs the same amount or type of help and it has been our experience that this is truly the case. He has provided educational information as well as exercises that clients can work on to see what might work best for them. Some of the work is done with the audiologist; however, a great deal of the work is done at home. Our experience is that the therapy is easy to follow and is "down to earth".

If you or someone you know has tinnitus that is distressing, we would be glad to discuss the techniques to see if Progressive Tinnitus Management might be appropriate. We do have to charge for the audiologist's time and the training materials. Please feel free to call either of our offices to arrange a consultation. ❑

Audiology Word Search
Kristina

U	M	R	E	O	H	P	E	L	D	D	I	M	A	U
S	E	U	S	T	A	C	H	I	A	N	T	U	B	E
S	R	R	R	M	M	I	D	I	F	O	D	R	S	E
U	M	V	A	A	M	O	E	E	I	I	U	D	V	H
C	O	C	H	L	E	A	C	N	O	T	U	R	E	L
N	O	D	N	L	R	T	I	L	L	A	N	A	C	O
I	I	E	V	E	I	M	O	M	N	C	R	E	A	U
O	I	S	T	O	I	G	V	I	M	I	F	N	L	I
C	O	U	N	U	I	L	A	E	N	F	V	E	N	C
N	O	S	N	S	S	O	L	G	N	I	R	A	E	H
Y	R	O	T	I	D	U	A	S	L	L	N	O	R	E
L	U	U	E	S	T	I	R	R	U	P	E	N	V	Y
O	P	N	T	L	D	S	A	S	L	M	L	P	E	S
R	P	D	T	C	E	L	T	S	T	A	P	E	S	R
E	N	U	S	N	O	S	G	M	I	M	R	N	F	I

audiologist	hammer	anvil
stirrup	mcneill	canal
hearing aid	voice	outer
middle	inner	auditory
eustachian tube	hearing loss	ear
cochlea	amplification	eardrum
sound	infection	nerve
malleous	incus	stapes

Find the answers at: http://www.armoredpenguin.com/wordsearch/Data/2011.10/2513/25132813.049.ans.pdf

Ear Cookies

1 cup granulated sugar, divided
Extra granulated sugar for dusting
3 to 4 teaspoons ground cinnamon
1 (17-1/4 ounce) package frozen butter puff pastry sheets, thawed.

Method:

1. Thaw dough at room temperature for about 1 hour, or overnight in the refrigerator.
2. Line baking sheets with parchment paper or a Silpat baking mat.
3. In a small bowl, mix together 3/4 cup sugar and the cinnamon; set aside.
4. Sprinkle 1/4 cup sugar on a clean work surface.
5. Gently unfold one of the pastry sheets. Place the pastry sheet on top of the sugared work surface, and sprinkle evenly with 1/2 of the sugar/cinnamon mixture to within 1/2-inch of the edges. Gently press the sugar/cinnamon into the pastry.
6. Using a rolling pin, gently roll out the dough into a 9 x 15-inch rectangle 1/8 inch thick, being careful not to press too hard around the edges. Continually coat both sides of the rolling pin with sugar.
7. Place the dough so one of the long sides is closest to you. Using your fingers, roll the dough length-wise into a long cylinder, as tightly as possible without stretching it (as you would a roll of wrapping paper), stopping when you reach the middle. Repeat the same rolling procedure with the other long side until you have two (2) tight cylinders that meet in the middle. Wrap tightly in plastic wrap; place in the refrigerator to chill at least 1 hour.
8. After the dough has chilled, remove from the refrigerator and unwrap the dough. Using a sharp knife, cut the dough crosswise into 3/8-inch-thick slices (they'll look like little scrolls). Sprinkle the tops with approximately 1 tablespoon of the sugar. Place on the prepared baking sheets, and firmly flatten with the palm of your hand. Cover with plastic wrap and place in the refrigerator for 1 hour.
9. Preheat the oven to 425 degrees.
10. Place in the oven and bake 5 minutes.

Reduce the oven temperature to 400 degrees and continue baking until the pastry is golden brown and well caramelized, approximately 10 minutes. NOTE: if baking more than one sheet at a time in one oven, switch positions halfway through baking. Remove from the oven; using a thin spatula, immediately transfer the cookies to a wire rack to cool completely.

Serve shiny side up. Serve hot or at room temperature. Ear cookies are best the day they are made. Store airtight at room temperature up to 3 days; freeze to store longer. One sheet of pastry dough makes about 20 cookies.

Smoking and Hearing Loss

NYU School of Medicine researchers report in a new study that exposure to tobacco smoke nearly doubles the risk of hearing loss among adolescents. The study is published in the July 2011 issue of Archives of Otolaryngology Head & Neck Surgery.

"More than half of all children in the U.S. are exposed to secondhand smoke, so our finding that it can lead to hearing loss in teenagers has huge public health implications,"says Anil Lalwani, MD, professor of otolaryngology, physiology and neuroscience, and pediatrics at NYU School of Medicine, who led the research. "We need to evaluate how we deal with smoking in public places and at home, as well as how often and when we screen children for hearing loss," he says.

The dangers of secondhand smoke are well known. Living with a smoker raises the risk of dying from heart disease and lung cancer, and in children exposure to smoke exacerbates the severity of asthma attacks and causes more than 750,000 middle ear infections, according to the American Cancer Society. The new study is the first to link secondhand smoke to hearing loss.

More than 1,500 teenagers aged 12 to 19 participated in the nationwide study. They were selected from the 2005-2006 National Health and Nutrition Examination Survey, which collects health information from children and adults around the United States. The teenagers were initially evaluated in their homes and then were given extensive hearing tests and blood tests for the chemical cotinine, a metabolite of nicotine, at a medical center.

The teens exposed to secondhand smoke, as measured by the metabolite in their blood, were more likely to have sensorineural hearing loss, which is most often caused by problems with the cochlea, the snail-shaped hearing organ of the inner ear. "It's the type of hearing loss that usually tends to occur as one gets older, or among children born with congenital deafness," explains co-author Michael Weitzman, MD, professor of pediatrics and psychiatry at NYU School of Medicine.

The study found that teenagers exposed to smoke performed worse across every sound frequency tested, especially mid-to-high frequencies important for understanding speech. In addition, teenagers with higher cotinine levels, indicating greater exposure, were more likely to have one-sided or unilateral low-frequency hearing loss. Overall, the researchers conclude that "tobacco smoke is independently associated with an almost 2-fold increase in the risk of hearing loss among adolescents."

Over 80 percent of the affected teenagers in the study were not aware of any problem, the researchers reported. "Milder hearing loss is not necessarily noticeable," says Dr. Lalwani. "Thus, simply asking someone whether they think they have hearing loss is insufficient."

The consequences of mild hearing loss, which researchers suspect may be due to damage to the ear's delicate blood supply, are "subtle yet serious," says Dr. Weitzman. Affected children can have difficulty understanding what is being said in the classroom and become distracted. As a result, they may be labeled as "troublemakers" or misdiagnosed with ADHD (attention deficit hyperactivity disorder).

Currently, all infants born in the United States are screened for hearing loss; however, there are no guidelines for screening a child's hearing past the early school years, says Dr. Lalwani. "Those children who are exposed to secondhand smoke," he says, "need to be regularly screened." ❑

Research Assistance

Canadian Association of Speech-Language Pathologists and Audiologists
www.caslpa.ca

Speech and Hearing
www.speechandhearing.ca

Canadian Academy of Audiology
www.canadianaudiology.ca

Canadian Hard of Hearing Association
www.chha.ca

Healthy Hearing
www.healthyhearing.com

Widex
www.widex.ca

Phonak Corporation
www.phonak.com

Tinnitus Association of Canada
kadis.com/ta/tinnitus.htm

Unitron Hearing
www.unitron.com

Oticon /Phonic Ear
www.oticon.ca

Island Deaf & Hard of Hearing
www.idhhc.ca

Musicians' Clinics of Canada
www.musiciansclinics.com/home.asp

ClearSounds
www.clearsounds.com/

The Human Auditory Physiology Laboratory, U.B.C., Dr. David Stapells, Director
http://www.audiospeech.ubc.ca/haplab/haplab.htm

School of Audiology and Speech Sciences, U.B.C.
www.audiospeech.ubc.ca/

British Columbia Association of Speech Language Pathologists and Audiologists
www.bcaslpa.ca

The Western Institue for the Deaf and Hard of Hearing
www.widhh.com

Change of Address or Name

I have changed ❑ my address ❑ my name ❑ my e-mail address

Name _____ (previous) _____

New Address _____

_____

New Phone Number _____

New e-mail address _____

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