

# What's New at McNeill Audiology

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## Technology Updates

By Edward Storzer, M. Sc., Registered Audiologist & Brent McNeill, M.A., Registered Audiologist

### Oticon *Chili*

Oticon has introduced a new 'power' behind-the-ear hearing aid. The *Chili*, a hearing aid meant for individuals with severe to profound hearing loss, is designed to optimize audibility and minimize distortion that can often be produced with older 'power' hearing aids.

Features (manufacturer terms are in italics) in the new Oticon *Chili* include:

- 1) "*Speech Guard*", which helps improve audibility of hard to hear speech sounds;
- 2) "*Spatial Noise Management*" helps users know where sounds are coming from and "*Split Directionality*" works to reduce surrounding background noise and focus on conversation;
- 3) "*ConnectLine*" technology, which uses wireless communication to improve the ability to hear television and the telephone;
- 4) Water repellant and shock resistance housing;
- 5) Size 13 battery (allowing smaller aid size compared to older 'power' aids); and
- 6) A volume control with an off position and numbered level indicator.

Even though individuals with severe to profound hearing loss have the greatest communication challenges, there are a limited number of hearing aids designed specifically for them. We have already started fitting clients with the Oticon *Chili*, and are excited to have such an advanced hearing aid that is focused on clear audibility and robust functionality for people that rely on their hearing aids at all times.


### The ReSound *Alera*

ReSound was the first manufacturer to produce a miniature behind the ear, 'open-fit' hearing aid. This ReSound Air hearing aid triggered a revolution in hearing aids that are comfortable, provide more natural sound, and are cosmetically pleasing. Every manufacturer now offers several models of open-fit hearing aids.

The *Alera* is ReSound's latest open-fit hearing aid model. We are impressed by the innovations:

- A new Digital Feedback Suppression that provides effective feedback management, even in situations such as using the telephone and listening to music;
- Reduced amplification of unwanted noise;
- The amplification mimics the function of the human cochlea to deliver a more natural sound;
- The hearing aids automatically narrow in on conversations in noisy situations;
- The *Alera* uses a device that connects to televisions, stereos, cell phones, computers and mobile phones. This faster 2.4 Gigahertz wireless technology carries over further distances than other transmitters and is more resistant to interference;
- The device which connects to the external devices sends the signal directly to the hearing aids. Other manufacturers have devices that the client usually wears or is in their remote control, and transmits to the hearing aids themselves;
- The outsides are coated with nanotech for more resistance to moisture and corrosion.

While in our training, we listened to the hearing aids and noted the quality of sound, the ease of connecting to external devices as well as appreciating the distance it transmits. Plus if we walk out of range of the device, upon return we do not have to "pair" the hearing aids again with the external device.

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# Sudden Hearing Loss

By Kristina Plewes, M. Sc., Registered Audiologist

**H**earing loss affects thousands of people from young to old. With normal age related hearing loss, known as presbycusis, hearing loss typically affects the high frequency range of sound more than the low frequency range due to the anatomy of the ear. Additionally, the loss typically decreases slowly and the amount of hearing loss is similar for both the right and left ears. In other words, what happens to one side is essentially equal to what happens on the other side.

However, there is a small portion of the population who suffer from 'sudden sensori-neural hearing loss' or sudden hearing loss due to damage in the inner ear or to the hearing nerve. With typical age related hearing loss, the progression occurs over a number of years. In contrast, with sudden hearing loss the loss is extremely rapid. Reported timelines vary from hearing loss which literally happens overnight to hearing loss occurring within a limited time period. The 'definition' of a sudden hearing loss is a 30dB loss of at least 3 consecu-

tive frequencies all at once or over a period of three days.

Sudden hearing loss occurs in one ear with nine out of ten people and rarely affects both ears at the same time. Sudden hearing loss typically affects those between the ages of 30 to 60 years old and appears to affect males and females equally. Symptoms often associated with sudden hearing loss include tinnitus (often described as high pitched noises in the head/ears), a plugged sensation in the affected ear and severe dizziness or vertigo.

There are many potential causes of sudden hearing loss. However, in many cases the exact cause is never known. Infections and viruses such as meningitis, measles, rubella, mumps and a certain strain of chicken pox to name a few can often be associated with sudden hearing loss. Some antibiotics or cancer drugs can be associated with sudden hearing loss as well as physical factors such as a significant impact to the back of the head. Lack of oxygen and/or blood flow to the hearing organ, called the cochlea, can also cause a sudden hearing loss.

can involve just the high frequency sounds, just the low frequency sounds or any combination of the high and low frequencies. Once the sudden loss has occurred it is virtually impossible to predict whether the loss will be temporary or permanent. For a small number of people, their hearing comes back within the first couple of days without any medical intervention. For others, their hearing may improve with medical intervention but not to the point where they were before the loss. Some unfortunately may not show any improvement at all. A common therapy for sudden hearing loss is steroids which help to reduce inflammation and swelling and fight off possible illness. Physicians, of course, will determine the best course of treatment for individuals.

The important 'take home' message regarding sudden hearing loss is the faster medical assistance can be obtained, the greater the success there is of regaining some degree of hearing. Should you experience a sudden drop in hearing consult your physician immediately and contact your audiologist for an audiological evaluation. □

## Technology Update

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There are two versions of the *Alera*:

- ♦ The *Alera 61* which uses a size 312 battery and is able to use wireless connections to other devices; and
- ♦ the *Alera 60* which uses a smaller size 10 battery and is therefore a smaller hearing aid.

There are three prices for each *Alera* version with the most expensive having more of the computer programs to assist with better hearing in difficult situations. All of the audiologists have been impressed with what we have seen thus far and will be looking for feedback from the first clients that try them. □

For further information, please contact one of our clinics or look at the website: [www.gnresound.com](http://www.gnresound.com)

An infection commonly referred to as an 'inner ear infection' is probably the most well known association with sudden hearing loss on one side and is often accompanied by sudden and intense dizziness.

In rare cases a tumor can develop on the hearing or auditory nerve causing sudden hearing loss in one ear, typically accompanied with tinnitus as well. If a tumor is suspected the physician or Ear, Nose and Throat (ENT) specialist may likely order an MRI test.

The amount of hearing loss can vary anywhere from a mild hearing loss to a severe hearing loss. The loss



Dr. Valter Ciocca (right), Chair of the UBC Audiology Program, presented Brent McNeill with an award for excellence in clinical education, during the latest Audiology Conference

# Pardon Me?

By Grace Shyng, M.Sc., RAUD, RHIP, Head of Audiology, *Western Institute for the Deaf and Hard of Hearing*  
Vancouver Sun article Sept. 2010 Reprinted with permission

It's your grandson's 4<sup>th</sup> birthday party -- lots of noisy toys and 15 screaming preschoolers. On the TV, a large purple dinosaur is singing but you can't make out the words. Your lively grandson says something and everyone laughs. Except you! Your wife leans in and all you can think is, "Why is she always mumbling?" Lately, you've been saying, "what?" and "pardon me?" a lot.

Could it be that you're losing some of your hearing? You are certainly not alone. Hearing loss is the fastest growing disability in North America and it currently affects more than 10% of the population, with that number rising to over 30% of those over 65 and to over 50% of those over 75. Statistics Canada projects that by 2026 nearly 1 in 4 Canadians will be seniors. By then, most people will either be experiencing hearing loss themselves or know someone who is.

## What are the first signs of hearing loss?

1. You frequently ask people to repeat;
2. You say "pardon me?" or "what?" a lot;
3. You have difficulty hearing in noisy environments such as restaurants or parties;
4. You think most people are mumbling;
5. You are turning up the volume on the TV, radio or telephone.

**What if you suspect you have hearing loss?** Have your hearing tested by an Audiologist, a university-trained professional specializing in hearing, and hearing loss difficulties. If required, a hearing aid may be recommended.

## Do hearing aids really work?

Unlike prescription eyeglasses, hearing aids are not corrective devices and cannot restore your hearing to 100%. They are really just "aids". However, with a properly fitted aid, most people will notice an improve-

ment in overall speech understanding in everyday listening environments. Today's hearing aids vary from basic to advanced digital technology. The more advanced the hearing aid, the more effective at controlling background noise.

**Aren't hearing aids old fashioned and ugly?** Not at all. Today's hearing aids have attractive modern designs that shape well into or over your ear and come in a wide variety of colours so that your hearing aid will blend in with your hair colour or look smart like a high tech device.

**What if I leave my hearing loss untreated?** Hearing loss is often described as an invisible disability. People often delay seeking help. No one can tell you have a hearing loss simply by looking at you. And many

people often fake or bluff during conversations when they can't hear. Left untreated, hearing loss can lead to feelings of loneliness, isolation and depression. As we are social beings, we have to communicate in order to feel connected with one another. The negative effects of untreated hearing loss far outweigh the stigma of wearing a hearing aid. Also, the inability to hear in a social situation is often more 'visible' than the actual hearing aid.

## How much do hearing aids cost?

Hearing aids typically range in cost between \$1000 and \$4000 per hearing aid, depending on the level of technology and size of the hearing aid. Hearing aids are not covered by the BC Medical Plan. If you are a veteran or have third party medical coverage, you may have some funding assistance. □

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## Renovations

We are pleased to tell you that we have renovated our Sidney office and taken over the space next door. Taking down and putting up walls is such 'fun'. The booth move had to be done by the only company in western Canada that can do those kinds of jobs (see photo below). Thank-you for your patience during the dust/noise/transition phases. There is an **Open House** planned for early January, if you are curious to see our gorgeous, newly renovated office. Please see the flyer insert for details.



Left: Previous walls removed and getting ready to construct new ones. Such fun!



Below: Successful booth move - twelve 250 lb. panels reassembled

Left: new carpet in the new 'audiology suite' and the booth

# Research Assistance

**Canadian Association of Speech-Language Pathologists and Audiologists**

[www.speechandhearing.ca](http://www.speechandhearing.ca)

**Canadian Academy of Audiology**

[www.canadianaudiology.ca](http://www.canadianaudiology.ca)

**Canadian Hard of Hearing Association**

[www.chha.ca](http://www.chha.ca)

[www.healthyhearing.com](http://www.healthyhearing.com)

**Widex**

[www.widex.ca](http://www.widex.ca)

**Phonak Corporation**

[www.phonak.com](http://www.phonak.com)

**Tinnitus Association of Canada**

[kadis.com/ta/tinnitus.htm](http://kadis.com/ta/tinnitus.htm)

**Unitron Hearing**

[www.unitron.com](http://www.unitron.com)

**Oticon /Phonic Ear**

[www.oticon.ca](http://www.oticon.ca)

**Island Deaf & Hard of Hearing**

[www.idhhc.ca](http://www.idhhc.ca)

**Musicians' Clinics of Canada**

[www.musiciansclinics.com/home.asp](http://www.musiciansclinics.com/home.asp)

**ClearSounds**

[www.clearsounds.com/](http://www.clearsounds.com/)

**The Human Auditory Physiology Laboratory, U.B.C., Dr. David Stapells, Director**

<http://www.audiospeech.ubc.ca/hap-lab/haplab.htm>

**School of Audiology and Speech Sciences, U.B.C.**

[www.audiospeech.ubc.ca/](http://www.audiospeech.ubc.ca/)

**British Columbia Association of Speech Language Pathologists and Audiologists**

[www.bcaslpa.ca](http://www.bcaslpa.ca)

**The Western Institute for the Deaf and Hard of Hearing**

[www.widhh.com](http://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 \_\_\_\_\_

## Would you like to receive this newsletter by e-mail??

*'Save a tree' and have your newsletter delivered by e-mail.*

*Let us know by e-mailing [admin@mcneillaudiology.ca](mailto:admin@mcneillaudiology.ca) and we'll change the method of delivery for your newsletters.*

*Thanks!*

**For hearing solutions . . .**

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