



# Canadian Hard of Hearing Association North Shore Branch

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September and December by CHHA – North Shore Branch,  
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## Mountain Ear

### Prez Mez

by Mike Hocevar

In extending our mid-Winter greetings to you all, the board of directors are pleased to announce a new \$1000 bursary is being established in the memory of long time branch member Henry Romain. Many of you knew him from his meeting reminder phone calls and tending the registration table at our Summerhill meetings for so many years before his passing in the Fall of 2016. The bursary is being designated to help low income North Shore students attending Capilano University, who will administer this bursary on behalf of the branch.

This is in addition to the Carrell Hearn Scholarship we recently established, also for \$1000 and administered through the CHHA-National Scholarship program. Long time branch member Carrell most thoughtfully left a bequest to the branch that enables us to provide this financial assistance to qualified students. It's also worth noting that Carrell additionally generously shared her estate with other North Shore based charities including Lions Gate Hospital.

A new website is another exciting initiative to share. Board member Susan Gelinis is spear heading an extensive updating of our site to make it much easier for you to access lots of useful direct links to coping strategies, technology tips, and other hearing websites as further resources in addition to our current informative content. Look for this revamping to kick in sometime in the next few months, so keep checking for it online.

Many of you know about our free Hospital Kits that are most useful when going in to hospital for medical care. Board member Alan Dion has over the past few months been promoting this to Coastal Health, with an enthusiastic response from them.

For those of you who might like to attend Vancouver Community College's acclaimed speechreading

### April Presentation

**Monday, April 16, 2018  
7:00 pm at the Summerhill  
135 West 15th Street,  
North Vancouver**

**Special Guest Speaker  
Sgt. Perri Mainwaring  
North Vancouver RCMP  
Frauds & Scams**

**Recognizing and Protecting  
Yourself from Frauds & Scams**

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course, we are helping to sponsor a course to be held at West Vancouver Seniors Activity Centre as an outreach offering by the College. This is scheduled to take place starting on April 10, 2018 and runs until June 26. It will be held on Tuesday afternoons from 2:30 to 5:00 PM. Contact Lisa Dillon Edgett at 604-871-7348 or email [ldillonedgett@vcc.ca](mailto:ldillonedgett@vcc.ca) for info & details.

You might recall in past columns I mentioned the organization called Barrier Free BC, a non-partisan group promoting legislation by the province of British Columbia to be similar to what has existed in Ontario for a number of years. The goal is to enshrine accessibility rights for a number of disabilities and conditions, including many issues around hearing loss. CHHA-BC is a member of this umbrella group and recently participated in a meeting with the Hon. Shane Simpson to explain the goals. Mr. Simpson indicated in this meeting that the government is committed to strategies of poverty reduction. This means we must continue to press the current government for this legislation, which could conceivably include a number of poverty reduction features, like making available hearing aid funding subsidies. If you can phone your local MLA office to voice your support to Barrier Free BC's efforts, it is important and appreciated.

We have noted through this newsletter in the past about a meeting hosted a couple of years ago by North Shore Community Resources Society with the Provincial Seniors Advocate, Isobel Mackenzie. She reported at that meeting that almost half of seniors in care homes were not participating in programs or trips out. I suggested to her a key reason might be due to not having hearing aids because of high costs. Ms. Mackenzie agreed fully, and noted this has a huge negative personal and social consequence.

I am most pleased to share that Doug Muir has accepted an appointment to fill the vacant Board Member director position left by Caroline Wickham. We welcome him in this capacity as we strive to continue to deliver a most worthwhile program for you and our friends and neighbours across the North Shore. Thank you Doug for stepping up.

In closing, I would like to also mention another Branch milestone. This issue of the newsletter *Mountain Ear* is the 100<sup>th</sup> issue. Indeed, we thank Hugh Hetherington who took over as editor at issue number 12 in January 1997 and has continued to

produce our newsletter four times a year since. All 100 issues of the newsletter are available on our website [chha-nsb.com](http://chha-nsb.com) and not only provide a complete history of our Branch, but also include many interesting articles that you can pursue or download at your leisure.

## TV Streamers

by Hugh Hetherington

One of the first signs of hearing loss is difficulty when listening to TV. Common complaints include, "I don't understand every word, I have difficulty with accents, I can't read the actor's lips, and there is often music or other sounds in the background." Another issue frequently mentioned is that other family members always want me to turn the sound down. In other words, in order to hear the TV, I need the volume too loud for others.

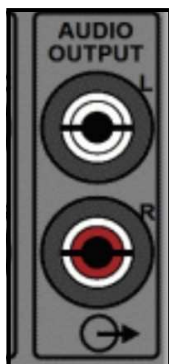
Fortunately, the major hearing aid manufacturers have addressed this problem in their latest models of hearing aids by providing some method of streaming the TV signal directly to your hearing aids. Typical products available include Phonak's TVLink, ReSound's Unite TV streamer, Siemen's TEK device, Widex's TV-DEX assistive device, Oticon's ConnectLine, Miracle Ear's Genius 2.0, etc.

These TV streamers send the sound from your TV set directly to your hearing aids and are very effective at eliminating all or most of the above-mentioned issues. Sound is delivered clearly to your hearing aids similarly to if you were wearing headphones. The hearing aid wearer can adjust his/her volume separately to others listening in the same room.

When these devices first started appearing on the market, their connection to the TV was via the analogue "audio out" left and right RCA jacks on the back of the TV set. As TV sets have evolved, however, these analogue "audio out" jacks have now disappeared from many of the new flat screen TV sets. Many newer model TV sets either have no external audio out capabilities or else this has been replaced with an "optical audio out" port or a "coaxial audio out" port. Most of the manufacturers have now taken this change in TV sets into account by adding optical and coaxial audio inputs to their TV streaming devices. The different types of cables needed for these options are also included with the units.

Typically, the streamer units should be user friendly “plug and play.” In other words, take it home, plug it in and everything works out of the box. That’s the theory anyway. In practice, this isn’t always the case, as I have found out by visiting homes to help people with the setup. Different TV sets sometimes have different optical protocols, such as, PCM or Dolby digital optical signals. Sometimes, it appears to be an either/or situation where you can have digital output or TV speaker output but not both at the same time, at least, not on the surface. If it doesn’t work out of the box, sometimes it is necessary to go deep into the TV settings menu and look to find out what audio options are available, if any. From there it becomes a situation where you must try different options to see what works.

On older TV sets where there is no optical or coaxial option, look for the red and white RCA jacks clearly labeled “AUDIO OUT.” If these don’t exist, there may be a 3.5” stereo headphone jack. This will often work just as well, however, headphone jacks sometimes disable the TV loud speakers when used. It may be possible to change this in the TV settings menu. The streamer should have a separate cable for both of these connections.



On newer TV sets look for an “optical audio out” port. This will look like the one pictured here. It has a small dust flap over the opening. Use the



included optical cable as shown to connect to this port, first removing the small plastic tips covering the ends of the cable. The cable will only go in one-way and you should rotate the cable until it slips in easily. If this optical system doesn’t work at first you can try going into the Sound Setting menu on the TV to see what options are available. You will need the proprietary remote control that came with the TV to do this. Try each setting until you have success. Another quick option is to connect to the “optical out port” on your cable box, if one exists. This will often work and precludes the need to go into your TV settings. Bear in mind that the cable box solution will only work for a stand-alone TV set. If you have DVD or VHS players or other external devices con-

nected through your TV, their sound will not be available using this method.

The last and final connection is to use the coaxial input and cable on the streamer. This is usually an orange RCA type jack as seen on the right side of this figure.

Again there could be issues with this method that require making changes to the TV settings. It may be an either/or coaxial or speaker option.



Because the newer HD and 4K TV sets are now using mainly HDMI options for their inputs, they may or may not have external audio out capabilities on them. There are so many TV makes and models that it is not possible to look into each of them for this article. Therefore, I suggest that when purchasing a new TV set in the future, check with the seller to see what audio options it offers. I have seen cases where people have bought a TV set only to find out later that there were no audio out options of any kind included.

*(The following two articles are reprinted here with permission from the Blog section of the website hearinglosshelp.com. Neil Bauman, Ph.D. is a hearing loss coping skills expert and the owner of the website from which the articles are taken.)*

## When We Concentrate on Seeing, We Can’t Hear Well

by Neil Bauman, Ph.D.

A recent article (1) noted that people can’t use their eyes and ears well at the same time when they are intently concentrating watching one thing while listening to something else.

This article began;

Do you ever get accused of “not listening” because you’re glancing down at your phone?

It then went on to explain that when a person is concentrating on reading something on his cell phone, it causes him to become temporarily deaf to normal-volume sounds.

Researchers analyzed “the real-time brain activity of 13 volunteers as they completed visual tasks while sounds played in the background. As the tasks got

harder, the brain's response to sound was reduced."

What was the result?

The brain scans showed that people were not only ignoring or filtering out the sounds, they were not actually hearing them in the first place.... These findings suggest that our vision and our hearing share limited resources in the brain, which is essentially forced to choose between processing info from our eyes or our ears. (1)

Our brains only have so much "horsepower" and if we use almost all of it on seeing, there is little left to process sound.

I've observed this over many decades. When we concentrate on reading something, we don't pay attention to what we are hearing. We can't. Our brains have run out of horsepower.

For example, if I am on the phone talking with a person and want to look up something they are asking about on my computer, when I focus on reading the information on my screen, I realize I don't have a clue what they have just been telling me. I need to first listen to them, and then have them remain silent while I search for the information they want.

Another reason for not being able to hear well when we are concentrating on reading something totally unrelated is that our brains do not multitask. Thus, you are either reading or listening—not both. You have to rapidly switch back and forth between the two. Even so, in the instances when you are reading, you are missing hearing things so you end up with many gaps in what the person was saying.

Thus, between running out of brain horsepower and trying to multitask, we typically don't succeed at either reading or listening when trying to do both at the same time.

This is why when listening to beautiful classical music, some people shut their eyes so their brains can use all their resources to let them fully enjoy the music. I do that too myself since there is no visual aspect when listening to recorded music.

In the same manner, people with normal hearing, when they are really concentrating on hearing something under difficult listening conditions, often shut their eyes so they can hear better.

(Instead of shutting their eyes, some just stare at something "blank" such as the ceiling or floor to get rid of any visual clutter that would reduce their hearing.) Just doing this frees up the visual horsepower, which is then switched over to help them hear better.

That's how hearing people's ears and brains work.

Hard of hearing people's brains work the same, but with a twist.

As a hard of hearing person, I always thought it asinine that hearing people would shut their eyes when they were straining to hear speech. This is because all my life I knew I needed both my eyes and my ears in order to make sense of what a person was saying when trying to hear under difficult listening conditions—which for me as a hard of hearing person is pretty much all the time.

When people are speaking, hard of hearing people like me need to see the person's lips moving (for speechreading) while, at the same time, straining to pick up the sounds they are saying. The good news is that when we concentrate on the same message, our eyes and our ears work together synergistically to better let us hear (understand) what a person is saying.

And if we look away—say at our cell phones—we just plain don't hear them anyway!

Those of us with severe hearing losses from birth instinctively know this, but people with normal hearing that lose their hearing later in life don't. Thus, they can have a hard time breaking their habit of shutting their eyes in order to hear better.

This was brought home to me when I was taking a speechreading instructor's training program. Some of us in the class were hard of hearing from birth, and some had lost hearing later in life, like the man sitting beside me.

At one point the instructor was mouthing words silently or with a very low voice to see how well we could speechread her—and there was the man beside me, hands cupped under his chin as he stared intently at the floor straining to "hear"! Needless to say, he missed the whole exercise.

(1) Reliford, Alexis. February 20, 2016. The weird way looking at your phone can mess with your hearing. Fox News. <http://www.foxnews.com/health/2016/02/20/weird-way-looking-at-your-phone-can-mess-with-your-hearing.html>.

## **Five Facts About Hearing Loss and Hearing Aids That Make Using Loop Systems Important**

by Neil Bauman, Ph.D.

### **1. Hearing Aids Do Not Correct Hearing to Normal**

You might think that getting hearing aids would give hard-of-hearing people normal or near-normal hearing again. Surprisingly, the truth is that hearing aids only give you back about half of the hearing you have lost. This means that if you have an 80 dB loss like I have, with my fancy hearing aids, I can expect to hear as though I had a 40 dB loss. This is a blessing to be sure, but even with my hearing aids on, I still have a moderate hearing loss. As a result, I miss many things, especially in meetings and in larger venues such as churches and auditoriums. Thus, in addition to my hearing aids, I need further help from assistive devices such as loop systems.

### **2. Hearing Aids Are Only Effective for Distances Up to Six Feet**

Shocking as it may seem, hearing aids are really only effective for distances up to six feet from the sound source. Sure, hearing aids will pick up many sounds from much greater distances, but the intelligibility of the sound decreases so as to be essentially useless at these greater distances.

This means that if the person I am talking with is less than six feet from my ears, I have a good chance of understanding him well. But, as the distance increases, hearing becomes harder and harder. I strain more and more to hear, but, at the same time, I understand less and less. The result is that I miss much/most/all of what the speaker says. This means that in meetings, church services and in auditoriums, I miss a lot because even though the building may have a million-dollar sound system, it's loud-speakers are still considerably more than 6 feet from my ears. That is why, in addition to my hearing aids, I again need further help from assistive devices such as loop systems if I am going to hear and understand what is being said.

### **3. The Intelligibility of Speech Decreases as the Distance Increases**

Hard-of-hearing people understand less and less of the spoken word as distance increases—even when wearing their fancy, expensive hearing aids. This is just the laws of physics in action.

Here are six facts about speech that will help you understand why this happens.

1. Speech is made up of both lower-frequency (<1,000 Hz) and higher-frequency (>1,000 Hz) sounds.

2. Lower-frequency sounds give speech most of its volume. (About 95% of the speech energy goes into

making lower-frequency sounds.) At the same time, lower-frequency sounds only contribute about 40% of the intelligibility of speech.

3. Higher-frequency sounds add very little to speech volume. (About 5% of speech energy goes into making higher-frequency sounds.) However, this minuscule amount of speech energy contributes a whopping 60% to the intelligibility of speech.

4. Lower-frequency sounds travel considerable distances in air with relative ease.

5. Higher-frequency sounds are quickly attenuated in air so they don't travel very far.

6. About 90% of the people with hearing loss have a high-frequency loss.

Now let's put these facts together and see exactly what this means in practice for the average hard-of-hearing person. I think you will find this quite enlightening.

If you have a high-frequency loss, you hear the louder (lower-frequency) components of speech, but not the much-softer, higher-frequency parts of speech. Thus you hear people talking. That's not the problem. However, because most of the intelligibility of speech lies in the higher frequencies, you don't understand much of what they are saying. To you, speech sounds muffled and is largely unintelligible because you don't hear the higher-frequency sounds that let you distinguish one word (syllable) from another. Thus, what you really need in order to understand speech better is more clarity.

Here's the rub. The typical hard-of-hearing person needs more clarity (more higher-frequency sounds) in order to understand speech, yet it is these very frequencies that he can't hear well at all.

At the same time, these vital higher-frequency sounds quickly attenuate in air. Thus, the further the hard-of-hearing person is from the sound source (the mouth of the person talking), the fewer higher-frequency sounds reach his ears. This double-whammy (not hearing higher-frequency sounds well in the first place coupled with the higher-frequency sounds "dropping out" of the air with increasing distance) leaves the hard-of-hearing person hearing mostly unintelligible (muffled) speech

This is where assistive devices, such as loop systems, come in. With a loop system both lower- and higher-frequency sounds are captured by a microphone before the higher-frequency sounds are lost in the air. These sound signals are then amplified and "piped" to the t-coils in the hard-of-hearing person's hearing aids without having to travel through the air as sound waves. The result is that the higher-frequency sounds are still there and the hard-of-hearing person hears beautiful, clear sound (or at least as beautiful and clear sounds as his damaged auditory system can produce).

This effect is remarkable. For example, one time, to prove the point, I stood near the back of a room that had a room loop system installed. With my hearing aids on (in microphone mode), I heard very muffled, mostly-unintelligible speech—so bad that if I didn't speechread the speaker, I got nothing. Then I switched my hearing aids to t-coil mode. Instantly, I heard beautiful, clear speech—as though the person was speaking directly into both of my ears at the same time! That is what loop systems can do for us.

#### **4. Loss of Sound Volume Is Not the Only Problem**

Another thing that few people seem to realize is that loss of volume is not the only, or even the major, problem when you lose your hearing. If volume were the only problem, then amplification such as hearing aids would solve the problem. Unfortunately, along with hearing loss, we also lose some, or much, of our ability to discriminate between words with similar sounds. Thus, speech become "fuzzy". We are never sure what you said is what we heard. This gives rise to so many of the "off the wall" comments made by hard-of-hearing people.

We hard-of-hearing people need as much clarity as possible so we can discriminate as well as our damaged auditory systems will allow. Again loop systems, because they capture the higher-frequency sounds and pipe them to our ears without attenuation makes hearing speech much clearer than using hearing aids alone.

#### **5. Background Noise Is a Killer**

Another serious problem with hearing loss is that we lose most of our ability to separate speech sounds from background noise as the ears of people with normal hearing can. This is because hearing aid microphones pick up, not only the wanted speech or music, but also any background noise present, other conversations and room reverberation.

Compounding the problem is that with hearing aids so often all we hear is foreground sounds—because everything we hear is in the foreground—both the speech we want to hear, and the background sounds that make it hard or impossible for us to understand speech when other sounds are present. That's just the way things are when you have a hearing loss and wear hearing aids.

Furthermore, people with normal hearing can pick out speech from the background sounds when the signal-to-noise ratio is as low as 0 dB (the speech and the background sounds are at the same level), although they do much better if the speech sounds are somewhat louder than the background sounds (about 5 dB).

In contrast, hard-of-hearing people need a large degree of separation between speech and the background sounds (at least a 15 dB signal to noise ratio) so they can hear speech clearly. Loop systems when properly set up and attached

to a properly-adjusted sound system do even better. They give a minimum of a 20 dB signal-to-noise ratio. This lets us hear speech clearly.

The reason loop systems can give a 20 dB signal-to-ratio is because typically the microphone is close to the speaker's mouth so it only picks up the speech sounds and not the background noise or reverberation in the room. In addition, because we listen via the room loop and the telecoils in our hearing aids, we only hear what is coming from the sound system since the microphones on our hearing aids are turned off. Again, this gives beautiful, clear sound via a loop system.

As you can see, loop systems (and other assistive device technologies such as FM and infrared when used with neckloops) largely eliminate the two main limitations of hearing aids and, as a result, can turn our hearing aids into awesome listening devices. The result is that we both hear and understand a lot more than we otherwise would.

All opinions expressed in this newsletter are those of the contributors and not necessarily those of the Canadian Hard of Hearing Association or CHHA – North Shore Branch.

## **Sound Advice**

**Presented by:**

**The Canadian Hard of Hearing Association**

**North Shore Branch**

**The group meets on the First  
Friday of each month from 10:00  
AM to 12 Noon**

at the West Vancouver Seniors'  
Activity Centre's Social Rec Room,  
695 21st Street in West Vancouver.

**No Meeting in July and August**

When we meet, we discuss topics and issues  
dealing with hearing loss.

We look forward to seeing you there.

Bring a friend, a family member,  
they are welcome too.

Subjects to be addressed include:

Technology; Speechreading;

Effective Coping Strategies;

Behavioural Issues;

Improving Relationships;

Improving Hearing Environments

**For Information call:**

**604-926-5222**