Canadian Hard of Hearing Association

North Shore Branch

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Editor: Hugh Hetherington

Issue 53 June 2006

Mountain Ear

President's Message

An Acoustically Friendly Home

Have you ever looked at a picture of a newly designed home and wonder, "What would the acoustics be like in this room with its bare windows, stone surfaces, tiled or hardwood floors, and lots of glass and stainless steel. l?

Or, have you been in someone's kitchen and tried to hear voices over the clatter of dishes above and toys below and feel like your head is about to explode?

Or, closer to home: have you or someone you know been renovating lately? Did you ask yourself, "Could something be done to make this a quieter space for me when I am there?"

Just looking at the number of magazines and newspaper articles out there on renovations, we know many people are renovating these days. With noise being a major intruder in our society, one would think that creating quieter homes would be an important factor in the renovating process. Unfortunately, I have learned from experience that very little has been published in the area of acoustically friendly spaces when it comes to home renovations. I have learned this because we are in the middle of a major kitchen renovation.

Let me give you just one example. For us, an ultra quiet dishwasher was easy to pick out, but finding a stove vent that was truly quiet was a very difficult challenge. For me, the vent was more important than the dishwasher: I can walk away from a dishwasher that's running, but I can't walk away from the stove vent when I'm cooking dinner. Invariably, my teenagers want to talk to me when I'm cooking! And to top it off, the stove vent noise is at ear level.

With the expert help of my engineering husband, Doug, we found a solution that we think will work. (I will let you know in our next newsletter; it isn't quite installed yet.) But I am concerned that the many hard of hearing citizens out there are not given much help in choosing acoustically friendly solutions that will make their home quieter and easier to hear others in conversations. Perhaps we should be asking for this kind of advice from the renovation experts out there.

No, I think we have to tell them what we need. They don't know what the problem is because they don't have a hearing problem (yet).

Okay, so I'll speak up. Next newsletter I will write an article on some of the acoustically friendly solutions for our kitchen renovation. But I could also use YOUR help. Will you please give me any ideas you have on how to create a quieter home? It could be specific materials that are quieter, or things you

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have done that made a difference. Maybe you even have a handy resource on acoustically friendly solutions for the home. I will include these in the article. It is my hope that these ideas will be of help to you or to someone you know who is thinking of renovating.

You can email me at flospratt@telus.net, fax at 604-990-4051 or write me at 321 West 24th Street, North Vancouver, V7M 2C7.

Looking forward to hearing from you.

'Til next time,

Flo Spratt

April Meeting

Report by: Andrea Gauthier

Our guest speaker for the April 17th Members' Meeting was Hugh Hetherington. Hugh is our Branch Treasurer and, as he wears so many other hats in order to help many people, he is also our Treasure. He is always learning new things and happy to pass the information on to us. On April 17th he spoke to us about the Miracle of Hearing and what we can do when it goes wrong.

Hugh's talk included amazing slides of parts of the ear that have not been seen until recently. He showed us pictures of the little hairs in the cochlea and what they look like when they are damaged. Hugh's explanations helped us to understand how the ear actually works and what happens when it doesn't.

I learned that, while a hearing aid may make things a bit better, it will never produce normal hearing, unlike eyeglasses which can produce normal vision. The inner ear is comparable to the retina in the eye. If damage occurs to the retina, glasses will not repair this damage. In the same way, damage to the inner ear can be irreparable.

Hugh reminded us of how amazing the normal ear is. Even today, scientists don't fully understand how the ear works.

The measurements of testing are not precise. The brain plays a part in hearing. It is a storage place of memories of sounds and has been programmed from even before birth. Suddenly, we get damage to our ears and all the sounds change. We have to adapt to new sounds over time.

Conductive hearing loss is less common than sensorineural loss which includes presbycusis (age-related hearing loss). Conductive loss can sometimes be treated with drugs or surgery. In this case, it is important to be examined by an ENT.

For greater detail on Hugh's talk, refer to the articles in the March and this June issue of Mountain Ear. Thanks, Hugh, for an interesting and informative talk.

The Miracle of Hearing (Part 2)

By Hugh Hetherington

In the first part of this article, which appeared in the March issue, I described our wonderful sense of hearing and its many parts. This time I want to talk about the problems that can affect our hearing and what we can do when it goes wrong in order to improve our quality of life.

Because the ear is such a complex mechanism, there are many problems that can affect it. Hearing loss is commonly broken down into four categories, conductive hearing loss, sensorineural hearing loss, mixed hearing loss and central hearing loss. Conductive hearing loss is concerned with the outer and middle ear, while sensorineural hearing loss concerns the inner ear (cochlea) and the hearing nerve. A mixed hearing loss is when multiple parts of the ear are involved in the hearing loss. Central hearing loss, sometimes referred to as central auditory processing disorder, is a problem in the auditory processing part of the brain. It is relatively rare and not commonly discussed. By its very nature it is not normally possible to it treat with hearing aid amplification.

What are some of the causes of hearing loss?

1. Wax build-up in the ear can cause a conductive hearing loss that is easily cleared up by a visit to your doctor.
2. Noise exposure is probably the most common cause of hearing loss today. We live in a noisy world and many loud sounds in the home, at work and out in the streets generally can have a debilitating effect on our hearing.
3. Prescription drugs and medications are another common cause of hearing loss. These are called ototoxic drugs and may cause damage to the hearing of some people but not others.
4. The effects of aging which is called Presbycusis typically causes progressive hearing loss as we get older. At age 65, statistics state that one in four has a significant hearing loss. At age 85 it increases to one in two.
5. There are also hereditary factors and medical conditions that result in hearing loss. This can occur early on or later in life.

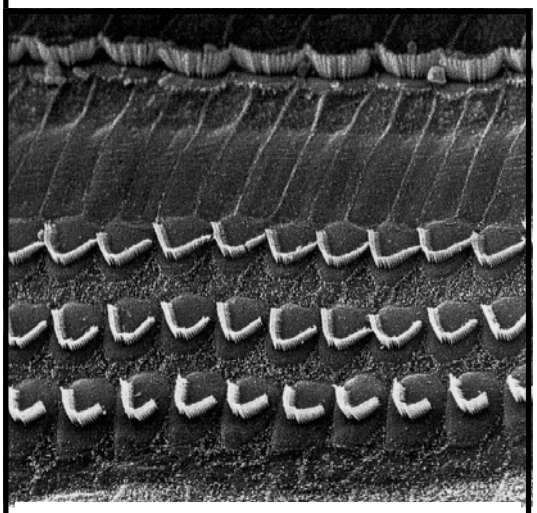
These are just a few of the causes, but with the ear being such a complex mechanism it would be too exhaustive to go more detail in this article.

While it is not necessary to have a medical doctor's referral to visit an audiologist for a hearing test, it is a good idea to have hearing loss evaluated by an otolaryngologist (E.N.T.), a doctor who specializes in diseases of the ear, nose and throat. The types of hearing loss are generally diagnosed through hearing tests performed by an audiologist and in certain cases, especially conductive losses, you should be referred to your doctor or an E.N.T. for further evaluation to see if medications, surgery or other medical intervention is indicated.

In evaluating a hearing loss, an audiologist will conduct a number of tests. These should always include audiometric (tone) testing with both air conduction and bone conduction. This is the primary method of determining whether the hearing loss is sensorineural or is either conductive or has a conductive component. Sensorineural hearing loss is by far the most common type of hearing loss and the usual treatment is the prescribing of amplification with hearing aids. Conductive hearing loss may also be treated with hearing aids, however, depending upon the cause, it may also be treated medically or with surgery.

In addition to audiometric testing, a complete evaluation of your hearing loss should include a discussion with your audiologist about the difficulties you are having with hearing, your lifestyle and other medical problems that you may have. The audiologist will examine your ear canal to look for wax build-up, inflammation or other possible causes of conductive hearing loss. You will also be given what is called a word discrimination test. This will determine your ability to distinguish between similar sounding words. After the complete evaluation, the audiologist will discuss your hearing loss with you and recommend a further course of action that may include the prescribing of hearing aids.

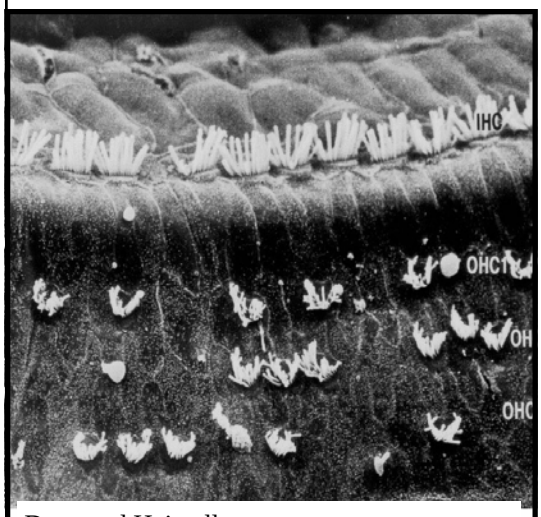
As you can see from the foregoing, hearing loss can be a complex issue. For this reason, it is important that you understand the nature of and reasons for your hearing loss, as well as, the limitations of hearing aids relative to your hearing loss. This will help you to have realistic expectations for your outcome. Will hearing aids give you back perfect hearing? Will you hear and understand everything like you used to when your hearing was normal? Depending upon the cause and severity of your hearing loss, be prepared for less than positive answers to these two questions. If your hearing loss is a mild or high frequency hearing loss, modern digital hearing aids will most often provide a very satisfactory and pleasing result. It is important to know, however, that hearing aids are not like eyeglasses. Prescription eyeglasses correct the focus of the light rays on the cornea of the eye. The cornea is not usually damaged in the majority of vision problems and



Undamaged Haircells Picture by R. Harrison (1988) Charles C. Thomas, Publisher Springfield, IL.

20/20 vision can usually be achieved. In sensorineural hearing loss, the cochlea has been damaged. Some of the tiny hair cells described in part 1 of this article have been destroyed in parts of the cochlea. This has reduced the ability of the ear to distinguish some of the frequencies necessary for the brain to process speech sounds adequately. The result is muffled or distorted perception of the sounds.

Hearing aids may make these sounds louder, but they will always be less than perfect and especially so in the presence of noise or competing speech



Damaged Haircells
Picture by Engstrom (1988) Copyright Widex

This brings our discussion to the point where we have to answer the question: "What can we expect from hearing aids and what can we do when hearing aids are not enough?" The simple answer is, we have to reduce or eliminate the noise or other interfering sounds.

Modern digital technology has come a long way in the last few years in providing help for us. In hearing aids, two features have helped to make great improvements. These features are directional microphones and digital noise reduction. Digital hearing aids can incorporate both of these features to provide solutions for speech in noise. Directional microphones improve speech in noise performance by focusing on the sounds we want to hear rather than the noise around us. Digital noise reduction works in a different way to reduce the noise around us and in so doing enhances our comfort in noise. When both of these features are employed satisfaction levels with hearing aids are greatly increased. It may not be perfect yet, but it represents a great improvement over what was available before.

To solve the problem more effectively, it may be necessary to go beyond hearing aids. Personal FM assistive listening systems can be a valuable adjunct to hearing aids. There are also induction loop and infrared systems now installed in many public places like theatres, churches and meeting rooms. These can be used to further reduce the noise and competing speech by bringing the speakers voice right to the listener's ears. When selecting a hearing aid with your audiologist always insist on having it equipped with a telecoil (T-Switch or telephone program). With a telecoil you have the ability to utilize these listening systems wherever they exist. The telecoil is also helpful when using the telephone.

Personal FM systems are available through your audiologist and it is amazing how they have improved the quality of life for those hard of hearing who have had the courage to use them. If hearing aids are unable to give you complete satisfaction do not hesitate to explore this option with your hearing professional. You will be glad you did.

Acceptance of your hearing loss is also very important. Don't be afraid to communicate to others that you have a hearing loss and let them know up front what your needs are in order to communicate with them.

Don't forget that you can also find many resources available through your CHHA Branch. You will meet others like yourself with similar problems and find out how they cope. The North Shore Branch offers workshops, courses in managing your hearing loss and speech reading, meetings with guest speakers, and this informative newsletter to support you with your hearing loss. We hope to see you at one of our meetings soon.

Donations to the CHHA – North Shore Branch are always welcome.

All donations are Income Tax Deductible

Send your donation to:

CHHA – North Shore Branch
Attention: Treasurer
600 West Queens Road
North Vancouver, B.C. V7N 2L3

Charitable Registration No. BN89672 3038 RR0001

Improving Your Life and Well-Being

Mark your calendars now for June 29th at 7:00 PM. This is the date for our summer meeting to take place at the Summerhill in North Vancouver. (See notice on Page 6).

For this meeting, we are fortunate to have Rick Waters, Head of the Communications Aids Dept. at the Western Institute for the Deaf and Hard of Hearing. He will come and share some of his vast knowledge of devices and strategies to improve communications, safety and security for the hearing impaired.

When it comes to problem solving for hearing related issues, Rick, who has been hard of hearing for most of his life, has the ability to come up inventive solutions to the problems that affect us in our daily life. With a little knowledge and encouragement, you too can improve your quality of life, safety and your ability to communicate.

To wet your appetite and with Rick's permission, I have selected a few technical items from "***See and Feel***" an in-house publication from the WIDHH Communication Aids Department.

Three Strikes and You're Out!

Or are you?

We all know that using the telephone can be very difficult and stressful for those with a hearing loss.

So what are those three strikes?

- On the phone, you hear with only one ear, not two as we were intended to;
- On the phone, you have no opportunity to lip-read or speech read; and
- The sound quality from the typical telephone earpiece is not of high quality.

So, what can we do to make life easier on the telephone? For a start, we can increase the volume of the sound, make it louder. We have several phones, including some cordless phones, that do just that.

Secondly, we can let people hear with two ears. Many of our phones have a socket for headsets or a neckloop to couple with the telecoil found in many hearing aids.

And thirdly, by using the headset or the neckloop, we eliminate the poor quality telephone earpiece, enhancing the high-frequency response.

It just takes time:

We all know that it takes some time to "get used" to using a new hearing aid, particularly if the user has not been hearing well for some time.

It takes the brain a while to learn how to sort out the information it receives from the ears, and to separate the information (signal) from the noise.

Did you know that the same situation holds true for the devices we sell in the Communication Aids store. Folks who have not heard well on the phone for some time are often disappointed when they first try an amplifying phone. What they need to do is use it and give their brain time to learn how to separate the signal from the noise. Of course, this also applies to things like Infrared TV listening systems, and even the Pocketalker or a Personal FM system.

Safety Issues:

For our clients who are either deaf or hard of hearing, safety can be a major concern. Here are some of the situations hearing people take for granted, but that may cause major risks for hearing loss people.

In the middle of the night, a smoldering electrical device triggers the smoke alarm. With hearing aids out, what's to wake the person with a hearing loss? One solution is to install a smoke detector with a strobe light. Another is to trot on over to the CommAids store, and purchase an alerting system with a bed shaker.

Because they can:

Can you listen to the telephone using FM? How about listening to the phone over an inductive loop? The answers are Yes, and Yes!

But why would you want to do this anyway? The answer is not "Because you can", but because sometimes it makes sense to do so.

What about FM and the phone? As you may know, I have a Phonak FM system which works with my hearing aids. When I used a neckloop to listen to the phone, it took a few seconds to plug in the neckloop**,** and this sometimes inconvenienced our receptionists. Now, I run the phone audio into the FM Handimic, and all I have to do is hit the FM button

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Sound Advice

A monthly series of informal workshops and discussions
around issues affecting the hard of hearing.

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
(Holidays excepted) at the West Vancouver Seniors' Activity Centre's Learning Studio,
695 21st Street in West Vancouver.

Come and join us and other Hard of Hearing people who get together to share and discuss.
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 will include:
Technology; Speech Reading; Behavioural Issues;
Improving Relationships; Improving Hearing Environments

For Information call: 604-926-5222 or Fax: 604-925-2286

on my Hearing Aid remote, and I'm connected. High quality binaural sound at the touch of a button.

What about the phone and a loop. Again, this could be a viable system for the right person. If you plug the audio out from one of our amplifying phones into the room loop system, the sound will then be picked up by the T coils in the users' hearing aids. This will enable them to hear on the phone without the bother of putting on a headset or a neckloop. The phone rings, turn on the T switches, pick up the handset, and begin the conversation.

Small things make a difference:

Sometimes we find that solving a client's hearing problem can be done with just a little something. Case in point: telephone feedback. If an amplifier is used to boost the volume of the speech on a phone, a feedback situation is often created, especially if the user holds the phone earpiece just a little way off the ear so that it works with their hearing aid.

The little solution: a $3.50 foam ring that goes on the telephone earpiece, and helps seal the sound and prevent the feedback. Available in fashionable white, and trendy black.

Another case: the client has an amplifying phone at home, but needs something when traveling or visiting. One possible solution: an inexpensive ($25.00) "Mega Ear" strap on telephone amplifier. This battery-operated device is held on the earpiece of the phone with an elastic strap, and amplifies the sound for the user.

And finally, what good is a loud telephone if you can't hear it ringing. The small thing that makes a difference is the strobe telephone flasher. We sell a very good one, that has both a loud audible alert, and a flashing strobe light. The unit can be set to trigger both alerts on an incoming call. The cost for this device is $70.00

You're Invited to Attend our next Meeting
On June 19th, 2006 7:00 PM
The Summerhill, 135 West 15th Street
North Vancouver.

Guest Speaker: Rick Waters
Head of Communication Aids
Western Institute for the Deaf
and Hard of Hearing

Topic:
Safety, Security and Communication Aids
For the Hard of Hearing

We are Hearing and Wheelchair Accessible