



Canadian Hard of Hearing Association

North Shore Branch

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Editor: Hugh Hetherington

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Mountain Ear

President's Message The Heart of the Matter

Is the ability to hear others a right or a privilege?



As hard of hearing people, this question needs our serious attention. It has become clear to me that my answer to this question affects how I feel about and act toward those who fail to meet my hearing needs and how I live with my hearing loss. My perspective on this issue influences my behavior from the moment I wake up to when I fall asleep!

I have had my hearing loss for over 40 years, and I must admit that I held the "it's my right" attitude for much of that time. As a result, I have felt hurt, rejected, or even angry when I had been left out of conversations, joke sharing and discussions. I went through high school with a "lump in my throat". Words like: "I'm depressed" and "Nobody really cares" had been regular visitors in my mind's tape recorder. Needless to say, with those strong emotions, I often had a hard time doing very much about my hearing needs in a positive way.

Now life has a way of teaching us hard lessons, but we can learn them if we listen! (pun intended) And like any skill we learn, with time and practice we become better at living life joyfully.

The "lesson" that changed me for the better is that to



hear others is a privilege! To be sure, hearing is a need, but I must not live as if that need is a right.

I believe that hearing, like our health, is a gift and each of us has more or less of it. Once we are grateful for what we do have, we become less demanding of wanting more. Sure, we "ask" for more, that is, ask for someone to repeat, speak louder, face us, or have loops and listening devices put in for us. But if it isn't given, I believe we can still be thankful for what we do have.

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For many of us, our hearing loss has come later in life, and this loss often takes us through a range of emotions. This is normal. But sometimes we get “stuck” in anger or resentment toward others who cannot always meet our needs. That’s when we may want to check out our perspective on the question, “Is hearing others a right or a privilege?”

And that, I believe, is the heart of the matter.

Til next time,

Flo



CHHA – North Shore Branch Annual General Meeting

Report by: Andrea Gauthier.

On September 20, 2004, the North Shore Branch held its Annual General meeting at the Summerhill, 135 West 15th Street, North Vancouver. The meeting chaired by our President, Flo Spratt was attended by 23 members and a number of guests.

During the proceedings a new Board of Directors was elected by acclamation. Members of the Board returning for another year were: Flo Spratt, President; Marion Ladkin, Vice President; Hugh Hetherington, Secretary-Treasurer; and Members-At-Large: Joan Gouws, Marsha Harris and Jim Wilson. Henry Romain joins the Board as a new director replacing Rosemary Almond who stepped down from the Board this year and has moved to the Sunshine Coast.

John Neumann, Executive Director, Information & Advocacy Services at the North Shore Disability Resource Centre (NSDRC) was our guest speaker for the evening. He spoke on the Topic “A Resource in Your Community – How Can We Help You?” The NSDRC is located at 3158 Mountain Highway, near the Lynn Valley Road junction with Mountain Hwy.

John was born in Brazil and moved to North Vancouver when he was three years old. At the age of 21, he was involved in a motor vehicle accident and as a result, has been quadraplegic ever since. He has been employed at the NSDRC for 22 years, working to improve the lives of people with spinal cord inju-

ries and other disabilities.

The NSDRC’s motto is: “Working for a Community for All” and their goal is to eliminate the barriers encountered daily by people with disabilities. They believe all people are equally important to the community.

When John started out, there were no places where disabled people could live independently. The NSDRC was established in 1975 by a group of concerned parents,

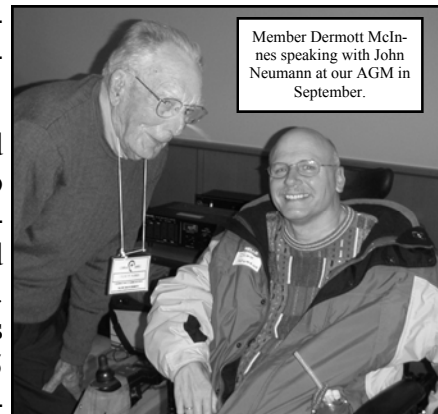
professionals and advocates. The first group home was established in 1978 and by 1990 ten more group homes were established, adapted or specifically built for adults with disabilities.

The NSDRC supports over 250 children and families, has about the same number of employees and is almost the largest employer on the North Shore. They believe diversity enriches the community. Their vision states: “Communities that value inclusion are committed to creating opportunities for all.”

The NSDRC is interested in creating links with our organization. They have a large library area and can offer us space there to store our library books and videos so that they are more available to our members and the public. Other ways the NSDRC can be of help include:

- Advocacy – working with individuals requiring assistance dealing with government agencies and ministries.
- Lobbying – Supporting CHHA to reach its goals
- Educating the public by using assistive listening devices at all events
- Adding CHHA Events to their calendar and mailouts

Funding for the NSDRC was cut back by \$200,000 last year, which means that more of their effort is now taken up with fundraising, taking away time to spend on the goal of helping the disabled. Their op-



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erating budget is \$6.5 million and they receive about 10% of that from the community. Competition for funds is growing as each organization wants their "share of the pie."

Attitudes are changing as we now see more curb cuts at corners and audible pedestrian signals at many intersections. John said that the publicity generated by Rick Hansen has made a big difference. As far as disabilities go, John said that the hard of hearing are pretty well at the bottom of the hierarchy of needs so there is a lot of work to be done in this area.

Our own Hugh Hetherington has been helping to bring about a lot of these changes as a member of the Advisory Committee on Disability Issues (ACDI) to the three North Shore Municipalities. Hugh advised us that the new John Braithwaite Recreation Centre in Lower Lonsdale will have loop systems and that ACDI is talking with the planners of the new Lynn Valley Library about installing such devices there. The Gleneagles Community Centre is also looped but still needs amplifiers to complete the job. West Vancouver Seniors' Activity Centre and the new West Vancouver Aquatic Centre will also be equipped with hearing assistance systems.

John mentioned that the City of North Vancouver is the most progressive municipality, not just in the Lower Mainland, in that they include the needs of the disabled in their specifications.

If you are interested in making a difference in your community, you can get more information from our office about the Advisory Committee on Disability Issues. ACDI serves the three municipalities on the North Shore and is always looking for new members who have a disability and are interested in working to make our communities more accessible.

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

To receive a tax receipt for your 2004 tax return make your donation before the end of December.

Send your donation to:

CHHA – North Shore Branch

Attention: Treasurer

600 West Queens Road

North Vancouver, B.C. V7N 2L3

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Hearing Aids and Hearing Technology – Yesterday, Today and Tomorrow

This was the subject of a presentation given at our meeting on Monday, November 22nd by Hugh Hetherington, Secretary – Treasurer of the North Shore Branch. There were about 30 people in attendance to hear Hugh's talk which took place at the Summerhill.

Hugh began his presentation by quoting some statistics: There are approximately 3 million Canadians with hearing loss, about 10% of the population, with an estimated 1.2 million hearing aid users. There have also been studies that have shown that 12% of those who have hearing aids don't wear them, and that only 58% of hearing aid wearers would consider themselves "very satisfied" with their hearing aids. While this might tend to reflect badly on the hearing aid industry, Hugh expressed optimism that the future looks much brighter with many of the recent advances in technology that are now being incorporated into hearing aids and assistive devices. In fact, we could now be entering the "golden age" of hearing aids.



In looking back at history, one of the earliest references in historical writings was a bone conduction device consisting of a metal shaft or spear. There are no known pictures of this

device, only mention in early writings around 1551. In 1670, Sir Samuel Morland in England apparently invented a large speaking trumpet. This idea was later turned around and became the hearing trumpet. This acoustic technology dominated throughout the 19th century and into the early 20th century with many styles of devices being produced.

The first electrical hearing aids didn't come on the market until 1900. These were based somewhat on the invention of the telephone and were



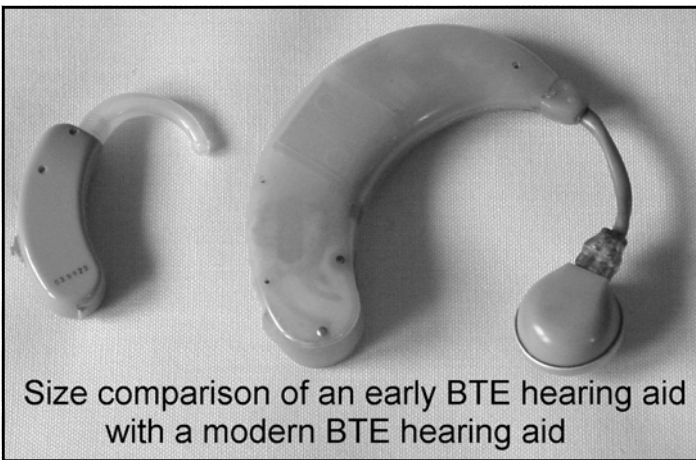
referred to as carbon hearing aids because of the carbon used in the microphones. They dominated the market right through until the early 1940's when vacuum tube hearing aids became small enough to wear on the body. Hugh showed a larger vacuum tube hearing aid from the 1930's, about the size of a large box camera. The biggest change came when the transistor was invented at Bell Labs in 1948. Hearing aid manufacturers were among the first to embrace this new technology with the first all transistor hearing aids appearing on the market in 1953. This quickly spelled the demise of the vacuum tube aid. More advances led to smaller and smaller aids with the first eyeglass hearing aid in 1954 and the first BTE aids in 1956. Hugh noted that it took man 400 years from the first device mentioned in 1551 until the first ear level hearing aids in the 1950's. Things have moved along much more quickly since then.

and ITE styles of digital hearing aids.

In talking about the very latest offerings in hearing aids, Hugh pointed out that because there are many hearing aid manufacturers, it is a very competitive industry, and while he is only able to discuss a few of the newer developments, other manufacturers not mentioned may have similar products. Also, because



Otarion "Listener" First Eyeglass Hearing Aid to appear on the market in 1954



Size comparison of an early BTE hearing aid with a modern BTE hearing aid

Today's hearing aid styles include BTE, behind the ear, ITE, in the ear, ITC, in the canal, and CIC, completely in the canal. Hugh briefly discussed the differences between analogue and digital hearing aids. While analogue hearing aids take the input signal and basically amplify it, digital hearing aids convert the input signal to numerical data, the language of computers and are able to manipulate the data in ways not possible before. Not only are they able to produce higher fidelity sound but, since the speech spectrum is split into multiple bands, more complex algorithms are possible and this enables more difficult hearing losses to be fitted. He also discussed remote controls for hearing aids and noted that these are now available in wristwatches and key chains for some models of hearing aids. Another popular feature available in hearing aids is the directional microphone. These can be very helpful in noisy environments and are incorporated into many of the BTE

new announcements of breakthrough technology are continually being made in the industry, it is very hard to keep up with the frequent advancements. In deciding which hearing aid is best for you, it is necessary to obtain a hearing test from a hearing professional and discuss your options with them.

Some of the interesting products that were mentioned are as follows:

Disposable hearing aids. The Songbird® disposable hearing aid has been around for little while and doesn't seem to have become too popular. It costs \$69.00 US and lasts for about 400 hours or 90 days, at which time you just throw it away and purchase a new one.

Micro-Tech Titanium BTE. This is a small programmable hearing aid in a titanium case. It claims to provide maximum shielding from cell phone interference, is water and shock resistant and designed for those participating in sports.



Oticon Syncro®: This is the latest offering from Oticon, announced in June 2004. It is claimed to be the first hearing aid to incorporate artificial intelligence simulating the brain's natural ability to focus on speech and filter out noise. It offers: Multi-band directionality, Tri-State noise management, Dynamic

Feedback Cancellation, and OpenEar Acoustics. All of these features can be read about on Oticon's website, www.oticon.com.

RetroX® by Auric Hearing Systems: This is a very small BTE digital hearing aid that uses a surgically implanted titanium tube from the back of the ear into the ear canal. The BTE hearing aid clips onto the titanium tube. The hearing aid is only to treat high frequency hearing loss and while its main advantage is that there is no occlusion of the ear canal, it does require surgery to insert the titanium tube.

Post-Auricular Canal (PAC) Aid by Sebotek®: This is a development introduced by Sebotek in 2003 to treat high frequency hearing loss. It claims to have special appeal to people who have not previously worn hearing aids. A small digital processor is worn behind the ear with an almost invisible wire connecting to a tiny speaker that sits in the ear canal. Because no ear mold is required, there is no occlusion of the ear canal.

ReSoundAir®: This is GN Resound's entry into the open-ear high frequency hearing loss market. This again is a tiny state of the art digital BTE hearing aid that connects via a very small-bore tube to a small plastic insert which nests comfortably in the ear canal. One of the many advantages of this type of aid is that it can be fitted on your first visit.



While not suitable for all hearing losses, the open-ear fittings provided by Sebotek's PAC and the ReSoundAir® are exciting new advances in hearing technology. They are primarily designed for high frequency (HF) hearing loss. This is prevalent in the elderly due to presbycusis (age related hearing loss) and HF hearing loss caused by noise exposure, a growing concern today, and increasingly common in younger adults. The open fittings provide for greater comfort with no occlusion of the ear canal made possible by DFS (digital feedback suppression). It also allows the person's own voice to sound more natural, a problem which has always been associated with hearing aid fittings that occlude the ear canal.

Also discussed were the newer FM assistive listening devices (ALD's). Significant entries into this market are Phonak/Widex HandyMic/Microlink FM system

and the Oticon/PhonicEar Lexis FM system. These systems can offer great improvement in the lives of those with severe and profound hearing losses. The FM transmitter offers multi-microphone technology with omni-directional, directional and super-directional settings. These features make it useful in a wide variety of "difficult to hear" situations. It also has a direct input that can be connected to a television set or other audio source. The sound is received by a Microlink FM receiver that clips onto a variety of models of BTE instruments via an appropriate boot.

Another newer and more versatile FM system is the Phonak Smartlink SX®. This claims to be the new benchmark in wireless communication. This is not only an advanced FM system with digital sound processing, but it also incorporates a remote control for your hearing aid and a bluetooth communication link to connect wirelessly to your cell phone. Other features include Fine-Scale Noise Canceler and Digital SuperZoom.



Other interesting technologies mentioned:

A necklace directional array microphone that was patented by Bernard Widrow, Professor of Electrical Engineering at Stanford University in 1996.

Link•It® Array Microphone System by Etymotic Research. This is a wireless highly directional listening device that clips over the ear and uses induction to connect to the hearing aid via the telecoil. It can be used with any BTE or ITE hearing aid with a built-in telecoil.



Hearing Eyeglasses. Although not on the market yet, a pair of eyeglasses with directional microphone arrays built into the arms has been developed at the Technical University of Delft in Holland. The glasses are supposedly put on and connect with your hearing aids via the telecoil to give highly directional reception of sound.

Hugh also briefly talked about implantable devices for hearing impairment. These generally fall into three categories: Bone Anchored Hearing Aids, Middle Ear Implants, and Cochlear Implants.

The BAHA (Bone Anchored Hearing Aid) is a surgically implantable hearing system approved by the FDA in the U.S. for the treatment of conductive and mixed hearing losses. In 2002 it was further approved for the treatment of unilateral sensorineural hearing loss. A titanium unit is implanted in the mastoid bone with an external abutment onto which a sound processor is attached.

Middle Ear Implants: There are a number of such systems being researched. One system recently approved for use is the Vibrant Soundbridge System. This unit transforms sound into vibrations to directly move the ossicular chain in the middle ear. It eliminates feedback, occlusion effect, and cuts down on distortion. It consists of an implanted component and an external sound processor.

Envoy® Totally Implantable Hearing Restoration System. This is an investigational device, developed by St. Croix Medical, Inc. of Minneapolis. This experimental device is not yet approved by the FDA. As a totally implantable system, it has a sensor that detects sound vibrations from the eardrum, processes it, and delivers it mechanically to the cochlea. It is totally invisible and takes full advantage of the sound gathering properties of the ear. It uses a lithium iodine battery with an estimated life of 4 years.

Cochlear Implants (CI). Cochlear Implants were developed during the 1970's and have made tremendous strides since the first single channel implants were approved by the FDA in November 1984. Early thoughts were that CI's would never produce any intelligible speech recognition and would only provide environmental sound awareness. Fortunately, this was proven to be wrong and modern multi-channel cochlear implants have changed the lives of many profoundly deaf individuals who can now converse readily with others and in many cases can even use the telephone.

To be a candidate for a cochlear implant, an adult must have a bilateral, severe-to-profound hearing loss and get minimal benefit from conventional hearing aids. There must also be no contraindications for surgery. Post-lingually deaf adults, those who have lost hearing gradually over time, get better results than individuals who could never hear. Cochlear implant surgery can be performed on children as young as 18 months and in some cases even earlier according to the U.S. FDA regulations.

The benefits of the CI permit the user to hear conversation and environmental sounds at comfortable levels. They are able to detect warning signals. Most have improved lip reading. They have improved communication in quiet and noise without lip reading. Sentence recognition scores improve in the majority of implant wearers.

In wrapping up his presentation, Hugh lastly mentioned the Auditory Brainstem Implant. This is a small electrode applied to the brainstem to stimulate the auditory nerve. It permits only the sensation of hearing and relieves the person from total sound isolation. Deaf people hear a variety of sounds but are not able to recognize speech sounds.

We had a very receptive audience who showed great interest in the subject matter presented. Following the talk, Hugh was able to answer many questions for the audience.

**CHHA – North Shore Branch
Welcomes the new Board of Directors for 2004/2005**

**President – Flo Spratt
Vice President – Marion Ladkin**

**Secretary–Treasurer
Hugh Hetherington**

Members-At-Large:

**Joan Gouws
Marsha Harris
Jim Wilson
Henry Romain**

Communication, Emotions and Hearing Loss

By Hugh Hetherington

The ability to communicate effectively is a vital human need. When this ability is impaired there are emotional issues that can add complexity to the rehabilitation process. These same issues also make it difficult for the hearing professionals that serve the hearing impaired. When hearing aids are rejected vanity is often cited as the major factor. Yet many of the same people who reject hearing aids have no problem wearing eyeglasses.

Rather than look to vanity as the main culprit, it may be better to look towards the need for education and creating an understanding of the value of good hearing and its impact on our lifestyle. One only needs to look at the eyeglass industry to see how they have succeeded in convincing their public that good vision is vital to a quality lifestyle. Certainly, the fashion component of eyeglass products should be evident through looking at their advertising.

It might be somewhat more difficult to provide a similar degree of satisfaction in the fitting of hearing aids since this is a much more complex issue. Perhaps it should be taken as a challenge to the hearing aid industry, especially in the light of the technical advancements in hearing technology that have taken place in the last few years. The latest innovations in digital signal processing along with directional microphones come close to being able to mimic the brain's natural sound processing ability and open fittings help to provide solutions for hearing losses that were previously difficult to treat.

The list of problems associated with hearing loss is extensive. It includes stress, fatigue, tension, irritability, embarrassment, depression, anxiety, and the list goes on. The results are: isolation, loneliness, depression, withdrawal from personal relationships, avoiding social activities, personal safety issues, declining health, unhappiness with work and general dissatisfaction with life.

When hearing loss occurs later in life, acceptance of hearing loss is more difficult. After a life-long ability to communicate, the increasing barriers presented by hearing loss can appear insurmountable. With other afflictions, it seems more possible for people to learn their limitations and make adjustments as necessary.

When dealing with acoustic conditions, it is impossible to know ahead of time how one will be able to hear. Some conditions may lend themselves to good hearing and the resulting enjoyment, however, in other situations the hard of hearing may understand little or nothing.

The natural reaction of people is to avoid situations where they feel they cannot function. This leads to self imposed isolation. Even those hard of hearing persons who are proactive and continue trying, most often experience frustration and disappointment. The reactive ones choose to stay home even though they may desperately wish to participate.

A greater understanding of hearing loss by both hearing and hard of hearing people can go a long way in making it more possible for those afflicted to accept their hearing loss. For example: In presbycusis (age related hearing loss) a person does not hear high tones as well as he hears low tones. In this case the person won't hear words clearly and they will appear somewhat muffled. Since there are gaps in the communication, such as, words that don't seem to fit in the context or have no meaning, they must subconsciously piece the communication together. Sometimes they get the wrong message. The perplexed hard of hearing person may be left with the feeling "what's wrong with me?" After many such occasions the person's self-image may suffer. What is needed is a hearing test and an explanation of what is happening. With an understanding of the hearing loss and proper corrective amplification these negative impacts will most likely be alleviated.

It is vital that hard of hearing people learn to take charge of their lives around their hearing loss. It is important to readily ask for repeats when they don't understand, and that they lose their inhibition about disclosing their hearing loss to others. They should not be afraid to ask people for help. "Bluffing" is not all right and can lead to embarrassment and even disastrous consequences.

Learning about assistive listening devices and their possibilities can lead to further improvements in their lives. There are many devices on the market that are just perfect to handle the most difficult listening environments. Many electronic devices, such as personal radios, cd players, walkmans, etc. are in common use by the general population. Just the knowledge that such electronic innovations are commonplace should make it easier to use personal FM

systems and other add-on systems to hearing aids.

As an adjunct to technological solutions, taking a "Managing Your Hearing Loss" and exploring coping skills and speechreading is always an option. The North Shore Branch regularly offers a course taught by hard of hearing individuals. Find out how others have learned to cope with the same problems that you face.

It should be understood that hearing loss is often a gradual deteriorating process. The sooner it is recognized and action taken, the less emotional effect it will have on a person's life. Years are often lost while people blame the "mumblers" and avoid going for that all important hearing test. If left uncorrected the brain effectively forgets "how to hear" making it much more difficult to adapt to hearing aid amplification later on.

People with normal hearing generally have no problem understanding what is said in the presence of other sounds. For the hard of hearing, background sounds often make understanding impossible. Even when involved in simple tasks, the hard of hearing must stop what they are doing to look at the speaker in order to comprehend what is being said. This results in stress and they must always be alert to when conversation is taking place or not, especially in the presence of other background sounds.

Memory of a conversation, names, places, etc. may be more difficult for the hard of hearing to retain. They are usually so focused on trying to understand the conversation that many of the details are lost for later recall. Hearing persons usually have a better retention of what has been discussed.

Those hard of hearing who appear to suffer less from the stress and anxiety are generally those who have accepted their hearing loss and have learned to live within the restrictions created by the loss. It should be stressed again that early recognition and intervention by way of testing, counseling and providing hearing correction, as needed, is paramount to continuing to lead a healthy, relaxed and productive life.

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

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 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

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