Journal of
The Association of Hearing Instrument Practitioners of Ontario

Signal

Winter/2015 • Edition 104

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The Association of Hearing Instrument Practitioners of Ontario

Gateway Plaza, 55 Mary Street West, Suite 211,
Lindsay, ON K9V 5Z6
Tel: 705-328-0907 | Toll Free: 1-888-745-2447
Fax: 705-878-4110 | www.helpmehear.ca

Editor-in-Chief
Lisa Simmonds Taylor

Contributing Writers
Maggie Arzani, Rhonda Kerlew, Eirini Mihanatzidou, John Niekraszewica,Richard Patterson, Adam Perrie, Lisa Simmonds Taylor,Rose Simpson, Joanne Sproule,

Editorial Advisory
Vivienne Saba-Gesa, Joanne Sproule

Managing Editor
Scott Bryant

Art Director/Design
Andrea Mulholland
amulholland@allegrahamilton.com

Circulation Coordinator
Brenda Robinson
brobinson@andrewjohnpublishing.com

Accounting
Susan McClung

Group Publisher
John D. Birkby
jbirkby@andrewjohnpublishing.com

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The mission of the Association of Hearing Instrument Practitioners of Ontario is to represent and guide its members in their practice which include, the testing, selecting and fitting, and dispensing hearing instruments and associated devices in the best interest of the hard of hearing, and may include the removal of cerumen from the external ear canal. Membership is available to hearing instrument practitioners or to those who have an interest in the hearing instrument profession.

Signal is the official journal of AHIP, the professional association of Hearing Instrument Practitioners of Ontario, incorporated in 1988 for the purpose of ensuring quality care for the hard of hearing. *Signal* presents technical and trade information to assist hearing instrument practitioners to better serve the hard of hearing.

Manuscripts
Researchers, practitioners, and others are invited to submit articles and papers for publication. *Signal* assumes no responsibility for return of unsolicited materials, and is not guaranteeing that every article of paper submitted will be published in *Signal*.

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FEATURES

Photo courtesy Jennifer Roman.

Listen and Learn

AHIP Launches CME Series to Help Physicians Manage Hearing Loss

A new online continuing medical education series developed by the Association of Hearing Instrument Practitioners of Ontario (AHIP) aims to improve the diagnosis and management of hearing deficiencies among family physicians in Ontario. Participating doctors can earn Mainpro-M2 credits for each free module, the first of which – How to Read an Audiogram – is now live on the AHIP website.

Family physicians are an important audience for the Association to reach, since roughly 1 in 10 of their patients may already have symptoms of hearing loss. That makes it one of the most common forms of chronic illness seen in general practice.

The CME series will stress that many patients will not complain of symptoms until their hearing loss is advanced, and that early detection, diagnosis and treatment are key to meaningful outcomes.

The How to Read an Audiogram module focuses on:

- The components of a full hearing assessment.
- Using tympanometry to test for middle-ear dysfunction.
- Determining the nature of the hearing loss using air and bone conduction testing.
- The importance of speech testing, how the tests are performed, and what the results convey.

The Association of Hearing Instrument Practitioners of Ontario

More modules will be added soon!

Dear Members,

Happy New Year! While we have several projects in the works with the Ministry of Health and Long-Term Care, Ministry of Community and Social Services, Veterans Affairs Canada, and others, I would like to take this opportunity to address the critical importance of establishing and maintaining high standards of professional practice.

By now, you will have received revised AHIP Quality Assurance policies, specifically, Standards of Practice, Infection Control and Cerumen Removal. Your Board of Directors believes it is critical to ensure and maintain these high standards in the best interest of those with hearing loss and for the future of the profession.

Quality Assurance polices outline minimally acceptable level of standard. We must continually assess and improve standards of equipment and techniques in the testing of hearing, selection and fitting of hearing instruments as well as functions relating to these practices. Ensuring minimal standards are responsibly upheld assists in a variety of other AHIP functions including discussions with the Ministry of Health and Long-Term Care regarding regulation as well as communication with other government and non-government agencies in relation to qualifications and standards.

Thank you for your continued care of those with hearing loss in Ontario and your dedication to the profession.

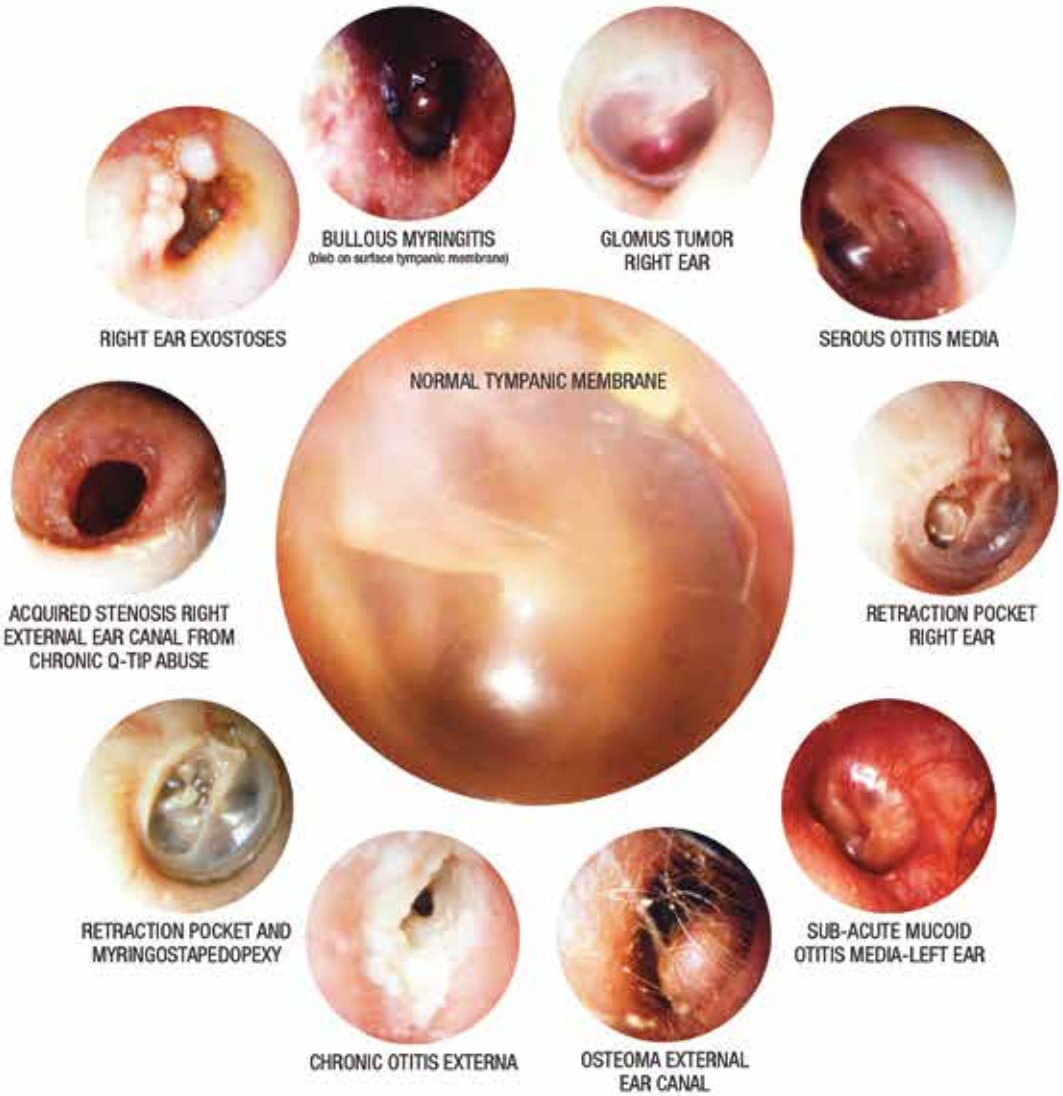
Sincerely,

Maggie Arzani H.I.D.
AHIP President

HEAR55+

Hearing is Essential

COMMON EXTERNAL AND MIDDLE EAR CONDITIONS



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Dear Members,

Hope you are coping well with the frigid temperatures and looking forward to a warm spring with Symposium in mind. Please mark your calendars now ***April 29, 2015 – May 1, 2015***. Administrative efforts are in full swing and updates will be posted on www.helpmehear.ca on a regular basis. A registration form is included in this edition of the *Signal*.

Always compelling, the *Signal* provides a vast array of topics which are of interest to you, the member. The *Signal* is your voice, your input is strongly encouraged and welcomed. Please consider writing an article or posting special events in your life. When speaking with members throughout the year I am always struck by the amazing things you do within your communities, province and internationally, please share these experience with all of your friends and colleagues.

I notice in this edition of the *Signal*, Adam Perrie has written an article outlining his personal views with respect to selling a practice. I find it somewhat disconcerting that in any article or any general discussion I have read or heard regarding this topic, the matter of client/patients health files is not addressed. If you, as a health care professional are considering any changes to your practice, it is critical that you as the *health information "custodian"* ensure compliance with all provincial privacy legislation. A "Checklist for Health Information Custodians in the Event of a Planned or Unforeseen Change in Practice" can be found in this edition of the *Signal*. For more information, the Information and Privacy Commissioner of Ontario website is www.ipc.on.ca In addition to privacy issues, it is very important you ensure that any existing health care contracts you and your colleagues have agreed to can/will be honoured.

Look forward to seeing you at Symposium.

Respectfully Submitted,

Joanne Sproule
Executive Director

Greetings Members,

Greetings Members,
Yay, its winter, I can finally complain about the temperature! It gets old pretty fast though so let's move on. Check out page 4 of the 2015 Winter Edition of the *Signal*. On this page you will find a copy of the pamphlet that introduced our latest educational module designed for family physicians. This was sent out in a mass email to approximately 4000 doctors in Ontario and distributed at our booth at The Ontario College of Family Physicians Annual Scientific Assembly, a conference attended by approximately 950. We spoke with many of those in attendance and distributed educational materials from both this year and last year's modules. Make a resolution to network more in your community! Get out there armed with these excellent resource materials and introduce yourself to your local family physicians! Materials can be purchased from the AHIP office for a very reasonable price.

Additional content for this edition includes the 2015 symposium registration form, a piece written from the patient's perspective and an article on the relationship between diabetes and hearing loss. Material contributed by the usual suspects includes John's invaluable advice on workplace retirement savings plans and our own Adam Perrie with an article on selling your business.

Happy reading and all the best for 2015!

Lisa Simmonds Taylor, BA, H.I.S.
AHIP Vice-President, Editor-in-Chief

Vitamin Supplement Successfully Prevents Noise-Induced Hearing Loss

Source: The Gladstone Institutes

Loss of hearing is linked to a decrease in a critical cellular protein, and elevating the activity of this protein could prevent noise-induced hearing loss, as well as potentially benefiting a host of other aging-related conditions

Researchers from Weill Cornell Medical College and the Gladstone Institutes have found a way to prevent noise-induced hearing loss in a mouse using a simple chemical compound that is a precursor to vitamin B3. This discovery has important implications not only for preventing hearing loss, but also potentially for treating some aging-related conditions that are linked to the same protein.

Published in *Cell Metabolism*, the researchers used the chemical *nicotinamide riboside* (NR) to protect the nerves that innervate the cochlea. The cochlea transmits sound information through these nerves to the *spiral ganglion*, which then passes along those messages to the brain. Exposure to loud noises damages the synapses connecting the nerves and the hair cells in the cochlea, resulting in noise-induced hearing loss.

The researchers set about trying to prevent this nerve damage by giving mice NR before or after exposing them to loud noises. NR was successful at preventing damage to the synaptic connections, avoiding both short-term and long-term hearing loss. What's more, NR was equally effective regardless of whether it was given before or after the noise exposure.

"One of the major limitations in managing disorders of the inner ear, including hearing loss, is there are a very limited number of treatments options. This discovery identifies a unique pathway and a potential drug therapy to treat noise-induced hearing loss," says Kevin Brown, MD, PhD, an associate professor of otolaryngology-head and neck surgery at the University of North Carolina School of Medicine and first author on the paper. Brown conducted the research while at Weill Cornell.

The researchers chose NR because it is a precursor to the chemical compound *nicotinamide adenine dinucleotide* (NAD+), which had previously been shown by Dr. Brown and co-senior author Samie Jaffrey, MD, PhD, to protect cochlea nerve cells from injury. However, NAD+ is an unstable compound, calling into question whether it could be used out of the petri dish and in a live animal. That led the scientists to use NR instead.

Methods for synthesizing NR were recently developed by Anthony Sauve, PhD, a professor of pharmacology at Weill Cornell and co-author of the study. This resulted in quantities of NR that were sufficient to test in animals.

"NR gets into cells very readily and can be absorbed when you take it orally. It has all the properties that you would expect in a medicine that could be administered to people," said Dr. Jaffrey, a professor of pharmacology at Weill Cornell.

Beyond just preventing hearing loss, the researchers think the results may have broader applications because of the underlying way NR protects nerve cells. The scientists showed that NR and NAD+ prevent
hearing loss by increasing the activity of the protein sirtuin 3 (SIRT3), which is critically involved in the function of mitochondria, the powerhouses of the cell.

The researchers hypothesized that it was this enhancement of SIRT3 that was behind the protective properties of NR. To test this, they manipulated SIRT3 levels independently of NR to see if they could still prevent noise-induced hearing loss by administering NR. Sure enough, deleting the SIRT3 gene in mice abolished any of the protective properties of NR. The researchers also showed that a new strain of mice, generated in the lab of co-senior author Eric Verdin, MD, at the Gladstone Institutes and engineered to express high levels of SIRT3, were inherently resistant to noise-induced hearing loss, even without administration of NR.

SIRT3 decreases naturally as we age, which could partially explain aging-related hearing loss. Additionally, some individuals carry different versions of the SIRT3 genes that result in reduced enzyme activity, which may make them more susceptible to noise-induced hearing loss.

Dr. Verdin, an investigator at the Gladstone Institute of Virology and Immunology and professor of medicine at the University of California, San Francisco, says, "The success of this study suggests that targeting SIRT3 using NR could be a viable target for treating all sorts of aging-related disorders—not only hearing loss but also metabolic syndromes like obesity, pulmonary hypertension, and even diabetes."

Other scientists who participated in this research include Sadia Maqsood, William Harkcom, Wei Li, and Anthony Sauve from Weill Cornell, and Jing-Yi Huang and Yong Pan from the Gladstone Institutes. Funding was provided by Weill Cornell, the NYS DOH Spinal Cord Injury Fund, the Gladstone Institutes, and the National Institutes of Health.

www.gladstoneinstitutes.org
Web: weill.cornell.edu

Dogs Hear Our Words and How We Say Them

Source: Eureka Alert

When people hear another person talking to them, they respond not only to what is being said--those consonants and vowels strung together into words and sentences--but also to other features of that speech--the emotional tone and the speaker's gender, for instance. Now, a report in the Cell Press journal *Current Biology* on November 26 provides some of the first evidence of how dogs also differentiate and process those various components of human speech.

"Although we cannot say how much or in what way dogs understand information in speech from our study, we can say that dogs react to both verbal and speaker-related information and that these components appear to be processed in different areas of the dog's brain," says Victoria Ratcliffe of the School of Psychology at the University of Sussex.

Previous studies showed that dogs have hemispheric biases--left brain versus right--when they process the vocalization sounds of other dogs. Ratcliffe and her supervisor David Reby say it was a logical next step to investigate whether dogs show similar biases in response to the information transmitted in human speech. They played speech from either side of the dog so that the sounds entered each of their ears at the same time and with the same amplitude.

"The input from each ear is mainly transmitted to the opposite hemisphere of the brain," Ratcliffe explains. "If one hemisphere is more specialized in processing certain information in the sound, then that information is perceived as coming from the opposite ear."

If the dog turned to its left, that showed that the information in the sound being played was heard more prominently by the left ear, suggesting that the right hemisphere is more specialized in processing that kind of information.

The researchers did observe general biases in dogs' responses to particular aspects of human speech. When presented with familiar spoken commands in which the meaningful components of words were made more obvious, dogs showed a left-hemisphere processing bias, as indicated by turning to the right. When the intonation or speaker-related vocal cues were exaggerated instead, dogs showed a significant right-hemisphere bias.

"This is particularly interesting because our results suggest that the processing of speech components in the dog's brain is divided between the two hemispheres in a way that is actually very similar to the way it is separated in the human brain," Reby says.

Of course, it doesn't mean that dogs actually understand everything that we humans might say or that they have a human-like ability of language--far from it. But, says Ratcliffe, these results support the idea that our canine companions are paying attention "not only to who we are and how we say things, but also to what we say."

All of this should come as good news to many of us dog-loving humans, as we spend considerable time talking to our respective pups already. They might not always understand you, but they really are listening.

Current Biology, Ratcliffe et al.: "Orienting asymmetries in dogs' responses to different communicatory components of human speech"

Is Hearing Aid Stigma Dead Among Younger People?

Source: Hearing Review

Results from a study published in the October JAAA indicate that the so-called "hearing aid effect" has diminished, if not completely disappeared, in the 21st century.

How do younger people view hearing aids and devices in the ear when they see them and has this changed through the decades? In the October 2014 edition of the Journal of the American Academy of Audiology, Erik Rauterkus and Catherine Palmer, PhD, present a study that suggests the perception of ear-worn devices has changed compared to similar studies done in the 70s and 80s. Read more about it at:

http://www.hearingreview.com/2014/11/hearing-aid-stigma-dead-among-younger-people/#sthash.r9rZELtB.dpuf.

Symposium 2015

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In signing this registration form I understand and hereby give my consent to the Association of Hearing Instrument Practitioners of Ontario for the use of my name as written above, or images taken while at the AHIP Symposium, which may be used by the organization for publication either/or on the organizations website, Signal magazine or such purposes as the organization considers appropriate.

☐ Check here if you have dietary restrictions & list them _____

Deadline for this submission to AHIP office - April 10, 2015

(Without prior notice by the due date, NO dietary restrictions can be accommodated on site - no exceptions)

NOTE: REFUNDS WILL NOT BE ISSUED AFTER MARCH 31, 2015

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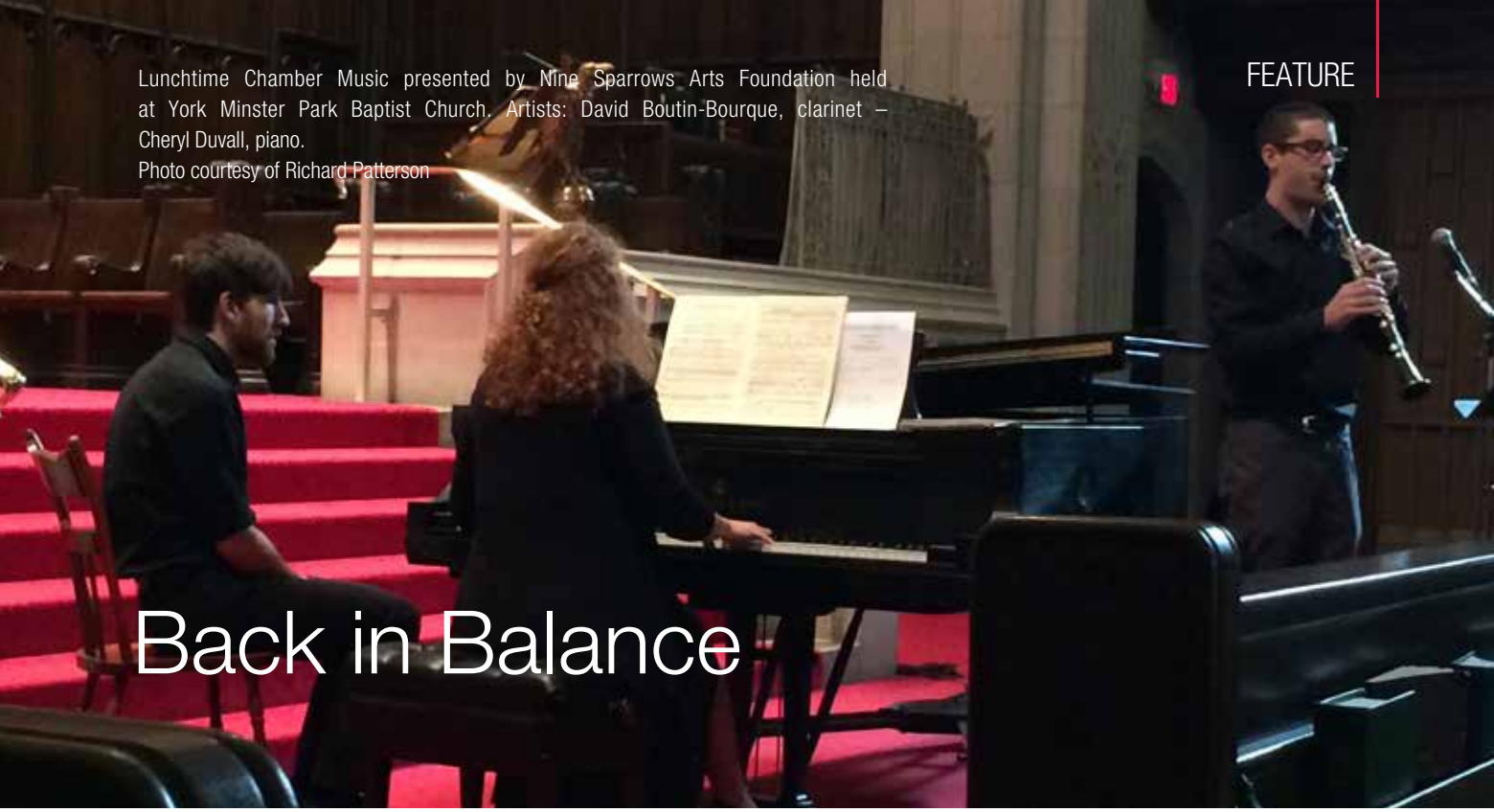

Lunchtime Chamber Music presented by Nine Sparrows Arts Foundation held at York Minster Park Baptist Church. Artists: David Boutin-Bourque, clarinet – Cheryl Duvall, piano.
Photo courtesy of Richard Patterson

Back in Balance

By Richard Patterson

After silence, that which comes nearest to
expressing the inexpressible is music.
Aldous Huxley, *"Music at Night", 1931*

Music has always been a very important part of my life for as long as I can remember. My Aunt Mazie instilled in me its importance in helping to keep our lives balanced. Over the years I have proven this to be very true.

When I was diagnosed with hearing loss one of the first things that came into my mind was will I lose or how much have I already lost in the ability to hear music.

As it turned out there was no question I had not been hearing music in its fullest tones for quite some time. I had definitely lost the ability to hear accurately the mid-range frequencies which are the most important part of the music. They define the overall accuracy to me of the artist interpretation. To fully connect with the music means to fully connect with your life in that moment.

I have worn hearing aids since 1998 and with the continued exceptional service from Sound Communication and in particular Maggie, Chris, and Dene and the support of some great technology. Their commitment to customer service beyond the technology and providing a full personal service has been a significant factor in my determination to make wearing hearing aids a positive success challenge.

My reason for this article is to share a music experience that today once again made me grateful for my hearing aids and the hearing aid remote that allows me to change the settings to better assist in various hearing environments. Recently I found myself in the beautiful sanctuary of Yorkminster Park Baptist Church in Toronto for the noon hour chamber music recital. Prior to my current hearing aids, I was not able to neither do this nor have the technological assistance to help me hear the mid-range of music. I can now and it is wonderful. Reminds me of what my Aunt Mazie so cleverly said many years ago that the love of music would help keep life in balance.

Depending on the severity of your hearing loss and the frequencies you can no longer hear, music can sound distorted, with notes or even whole sections of the piece completely inaudible. I have found this to be far less bothersome with the remote settings for "music." I will say that music with my hearing aids is not like I remember it to be…it is fuller now and again, balanced.

The Link between Diabetes Mellitus and Sensorineural Hearing Loss:

A Summary of the Evidence

By Eirini Mihanatzidou, MA(Hons), M.Aud, Aud(C), Reg. CASLPO, and Rhonda Kerlew, RN, BScN, MBA

About the Authors

Eirini Mihanatzidou (far left) is the president and chief audiologist of Brilliant Hearing, a patient-focused audiology practice based in Richmond Hill, Ontario.

Rhonda Kerlew is director of business development with Hearing Solutions, Toronto, ON.

Diabetes Mellitus (DM) is one of the fastest growing chronic diseases of our era. Recent studies suggest that sensorineural hearing loss is more prevalent in diabetic patients than in people without the condition. The aim of this article is to review the existing literature on the relationship between hearing loss and diabetes. Data was obtained by literature search using the MEDLINE, EMBASE and PubMed databases.

Diabetes mellitus is a group of metabolic disorders characterized by an elevated blood sugar and abnormalities in insulin secretion and action.[1] This group of disorders disrupts the metabolism of protein fats and carbohydrates rendering the body unable to utilize these nutrients. The resultant hyperglycemia can lead to dysfunction of several organs. Damage is noted in the nervous system, eyes, kidneys, heart and blood vessels.[2] In the non-diabetic individual blood glucose levels are controlled by insulin, a hormone produced by the beta-cells of the pancreas. When glucose levels rise in the blood stream (for example after a meal) insulin is released to normalize glucose levels. In the diabetic patient insulin production is either severely deficient in the pancreas or the pancreas is producing insulin but the body is unable to utilize it.[3]

There are two major types of diabetes. DM type I results from autoimmune destruction of the beta-cells of the pancreas. Ten percent of all diabetics in the United States are typically diagnosed in childhood or adolescence. Patients with DM I are insulin dependent and require close monitoring of blood sugar levels

to ensure blood glucose is controlled throughout the day. This type of diabetes was formerly known as insulin-dependent diabetes mellitus (IDDM).[4] DM type II is characterized by resistance such as a lack of response to insulin by the cells of the body (mainly fat and muscle cells), along with increased insulin production by the liver to overcome this resistance. It accounts for 90% of all cases of diabetes. It is typically diagnosed in adulthood and is closely associated with obesity. DM II is managed by diet, weight management, oral medications and/or insulin.[5] Type II diabetes was formerly known as non-insulin-dependent diabetes mellitus (NIDDM), but this term has been abandoned since most of the patients with DM II will require insulin treatment at some point in the course of their condition.[6] The prevalence of diabetes among adults within the 20–79 year range was estimated to be 6.4% in 2010, affecting 285 million people worldwide. The prevalence is expected to rise to 7.7% and 439 million adults by 2030.[7]

Both types of diabetes are associated with a number of chronic complications and co-morbidities. The most prevalent and well known complications include retinopathy, nephropathy, and peripheral neuropathy.[8] Each of these complications carries its own set of losses and dysfunction such as blindness, kidney failure, and peripheral vascular disease requiring amputation.[9] Another, less well known complication of diabetes is hearing impairment. Accumulating evidence suggests that there is a higher prevalence of hearing loss in the diabetic versus the non-diabetic population.[10–12] The hearing loss is bilateral, sensorineural, symmetrical, and tends to affect the high frequencies more than the low/mid ones.[13,14]

More specifically, Dalton et al. found that 59% of diabetic subjects had a hearing loss as opposed to 44% of non-diabetic subjects.[15] The association between diabetes and hearing loss was significant when results were analyzed excluding subjects with non age-related hearing loss. In a study conducted by Bainbridge et al. 68% of patients with diabetes were found to have some high-frequency hearing loss compared to 31% of subjects without diabetes.[16] The prevalence of low/mid frequency hearing loss was 28% in the diabetic patients as opposed to 9% in the non-diabetic group. The association between diabetes and hearing loss remained even after controlling for age, race, sex, poverty level, history of noise exposure, ototoxic medication use, and smoking status. The study by Mitchel et al. is in line with the above findings.[17] More specifically, hearing loss was found in 50% of diabetic patients compared to 38% of the non-diabetic subjects after adjusting for multiple risk factors. Furthermore, a study by Uchida et al. found that diabetes may affect the high-frequencies more strongly in the age bracket of 40–64 years of age than at age 65 and above.[18] Finally, a study conducted in 2009 by Cheng et al. revealed that the prevalence of hearing loss amongst diabetics has remained high over the decades when compared to non-diabetic persons.[19] More specifically, the authors compared the two cross-sectional National Health and Nutrition Examination Surveys of 1971-1973 and 1999-2004 (NHANES I and NHANES II). They discovered that from 1971 to 2004 in adults without diabetes aged 25–69, the unadjusted prevalence of hearing loss decreased by 9% whereas in the diabetic population there was no significant change.

With regards to the risk factors for hearing impairment in the diabetic population, evidence is conflicting. A number of studies have shown that hearing loss is correlated with glycaemic control (i.e. with the blood glucose levels) and duration of disease.[20–22] More specifically, Okhovat et al. compared the hearing thresholds of 100 patients with DM I aged 5–18 years.[23] They found that 21% of them had a hearing impairment and that the hearing thresholds were positively correlated with poor metabolic control (defined as an annual HbA1C of more than 7.5%). Furthermore, thresholds were significantly higher in patients with a history of diabetes of more than five years. Additionally, two studies by Lerman-Garber et al. and Konrad-Martin et al. reported a positive association between poor glycaemic control and impaired auditory brainstem responses in DM II patients.[24,25] Pudar et al. examined the effects of peripheral neuropathy and retinopathy on hearing impairment in 50 patients with DM I and found that the average sensorineural hearing loss was increased by 73% in the presence of neuropathy, and by 50% in the presence of retinopathy.[26] Bainbridge et al. found a strong correlation between neuropathy, duration of disease and high-frequency hearing impairment

in 536 diabetic patients, whereas Dabrowski et al. found higher mid frequency thresholds in 31 patients with DM I and retinopathy.[27,28] However, both of these studies, as well as a third study by Asma et al., failed to find a correlation between glucose levels and hearing loss.[29]

Recent studies suggest that diabetes may also increase the susceptibility to noise-induced hearing loss and sudden idiopathic sensorineural hearing loss (SISNHL). More specifically, Wu et al. and more recently Fujita et al. reported on an animal study in which diabetic rats had a significantly impaired recovery from a temporary noise-induced threshold shift.[30,31] Furthermore, Jang et al. found that the hearing thresholds at 4 kHz in 2,612 automobile factory workers were significantly worse in subjects with impaired fasting glucose and diabetes than in non-diabetic subjects.[32] Aimoni et al. studied the prevalence of diabetes in patients with sudden idiopathic sensorineural hearing loss and found that it was almost doubled when compared with the normal hearing subject group.[33] It has been suggested that diabetes can mediate SISNHL through cerebral microangiopathy and changes in blood viscosity.[34,35]

The exact mechanism involved in the pathogenesis of hearing loss in diabetic patients remains unknown. A number of histopathological studies conducted in humans found thickening of the capillary walls of the stria vacsularis, the basilar membrane and the endolymphatic sac, atherosclerotic narrowing of the internal auditory artery, atrophy of the stria vascularis, loss of outer hair cells especially in the lower basal cochlear turn, spiral ganglion neural atrophy, and VIII cranial nerve demyelination.[36–39]

In all, hearing impairment is one of the less well known complications of diabetes. More research is needed to delineate associated risk factors and mediators in its pathogenesis. Untreated hearing loss can negatively impact the social and emotional wellbeing of individuals.[40–43] The proportion of hearing impairment in the diabetic population in comparison with the non-diabetic population is high. In light of its high prevalence and its detrimental psychosocial effects, health care providers, primary care physicians and endocrinologists should consider referring all diabetic patients for a hearing test. Audiometry should be a routine evaluation in the annual test battery of all diabetic patients.

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Workplace Retirement Savings Plans

By John Niekraszewicz

About the Author

John Niekraszewicz (Nick-ra-shev-itch) BMath, FCSI, CFP, FMA is the Certified Financial Planner responsible for the AHIP Health & Dental Benefits Plan provided by JVK Life & Wealth Insurance Group. John is also the Principal of JVK Life & Wealth Advisory Group, specializing in Wealth & Estate Planning. John welcomes your questions and can be reached at 1-800-767-5933 or john.niekraszewicz@jvkgroup.com.

When it comes to implementing a health and dental plan for employees, AHIP members understand that they are not only assisting employees meet their needs for personal and family security, but they are also attracting and keeping good people.

Now it's time to go one step further and implement a workplace Retirement Savings Plan. And if you don't, the Ontario government will make it mandatory for you to do so. The Ontario Retirement Pension Plan (ORPP) proposes mandatory contributions by both employers and employees, similar to the way contributions are made to the Canada Pension Plan. The ORPP concept has received mixed reviews from both small business owners and financial advisors because details of how the plan will work are not complete and also because businesses view this as another imposed tax. But for those companies that don't have a "comparable" workplace Retirement Savings Plan, the ORPP concept is good news for employees and is scheduled to begin in 2017.

The logic behind the ORPP is sound. With life expectancies rising and savings rates declining, governments are concerned that more seniors will not be able to afford to retire or will outlive their savings. This has also been discovered by a March 2014 Leger and Environics survey that asked investors what they thought was most important when thinking about investing.

- 72% are concerned about not having set aside enough to last their lifetime
- 67% feel GIC rates are too low to generate the income they'll need
- 90% underestimate the amount of tax they pay

Every Canadian deserves the right to be able to retire comfortably regardless of whether they spent their working lives at a large company, small company, or were self-employed. But saving money for retirement takes discipline and studies have shown that when a mandatory retirement savings plan is implemented in the workplace, employees actually do save money.

The ORPP is not going away. Forward thinking businesses that have not implemented a workplace Retirement Savings Plan should look to do so now before the ORPP is mandated. Being proactive will allow your company to have in place a "comparable" workplace Retirement Savings Plan that is customized for your business and employees.

Fortunately, the workplace Group Registered Retirement Savings Plan (Group RRSP) has been available to Canadian businesses for quite awhile. Companies both big and small have implemented a Group RRSP together with a Health and Dental Plan in order to provide a more complete employee benefits package. Doing so has propelled these companies to become desired employers in their respective communities. Interestingly, the overall cost to employers, after tax, for implementing a complete benefits package has been minimal when compared to the employee well-being and community goodwill generated.

A workplace Group RRSP is really just a collection of individual RRSPs where employees make

contributions through payroll deductions and employers can match these contributions. It is very easy to set up, operate, and if necessary, modify or terminate. Employees also enjoy realizing instant tax savings because their Group RRSP contributions are deducted from their earnings before income taxes are calculated.

When implementing a workplace Group RRSP, there are a couple of things to consider. Make sure that any investments made to your plan are portable. This means that if an employee ceases employment, they can transfer their Group RRSP to their own RRSP and enjoy the options available to them. Also make sure that contributions are liquid and not subject to penalties. This is a good feature to have and gives your employees more flexibility to make changes to their investments.

Employers recognize that money taken off paycheques at source and invested in a workplace Group RRSP is a smart way to enable employees to build savings. If left to do it on their own, most people will find ways to spend every penny of their paycheque and more. This well-known behavioural bias prevents most people from doing enough to save for retirement on their own. They must be compelled to do so – or, at least pointed in the right direction.

When the ORRP becomes law, it is unclear if the Group RRSP will be exempt; however, it shouldn't matter. If your Group RRSP is structured so that it is portable and transferable into an ORRP, then you are way ahead of the competition and will remain a preferred company in your community.

As with any investment, I believe the best strategy is to take a long-term view, investing with care in a portfolio that is well diversified by asset class, geography, industry sector and which suits your tolerance for risk.

Enjoy life and have fun.

Selling Your **Business?**

By Adam Perrie

About the Author
Adam Perrie HIS, is with Woodstock Hearing in Woodstock, Ontario.

In the not too distant past there was little to no *corporate* interest in hearing testing and dispensing of hearing aids. The fitting of hearing aids was left in the caring, capable and personalized hands of *individual* practitioners who really had a passion for serving their patients and enjoyed the art of fitting their own unique needs and requirements with the best possible products that were available. Discussions over valuation or worth of an existing practice might revolve around how much money per file, goodwill, plus depreciated value of the audiometric testing and hearing aid measurement equipment.

This has dramatically changed in the past 10 years as investors and other groups have made hearing aids into a serious viable investment interest. To add to this situation, some manufacturers have aggressively sought to secure their profit through secured lines of distribution.

Things to Think About First…

If your business is declining, the competition is too fierce, or you just have had enough of being the chief cook and bottle washer then selling your practice may be a viable option for you. There are many reasons that you might want to sell your business. It is not a decision to be rushed or made lightly. Retirement, a desire to belong to a larger group, local competition or family member succession are but a few motivations to sell your business. The exit strategy or impending retirement is a pretty solid reason. You have put your blood sweat and tears into your practice and now perhaps due to health or age you would like to get out of the business and enjoy a quieter or different pace of life.

You need to determine for yourself well in advance when you wish to retire and how. If you would like to sell your practice and remain on as part-time staff for 5 years, then you should stipulate this up front. Keep

in mind that working for someone and following their practices in "your" clinic can be difficult, painful and perhaps impossible. A 3–5 year contract can be a long haul and be immensely stressful for both you and your former staff. An alternate strategy to selling your business to a corporation would be to take on an associate. This would be ideal in cases where you want to maintain the practice as it is and as it operates. As the years go by you could transfer the business to the associate and take a declining role, or you could become a part-time member of the office and maintain full ownership while working much less hours.

Whatever route you might pursue it is again vital to have accounting and legal assistance. A smile and handshake are not sufficient and countless examples exist of the failure of such an arrangement.

Be certain that if you want to stay on with the purchaser's organization after the sale and that you establish this before close. Items like salary, contract duration, and your roles and responsibilities *must* be predetermined in writing and in advance of close. Also remember that you can't expect to keep the salary and benefits that you enjoyed as an owner when you become an employee. (Or pending the status of your business maybe you will enjoy more?)

Make no assumptions as to your role with the future organization, or your place in their organization. Ensure that you know how the purchaser has and currently runs their operation, and what they intend to do in the future. Also, make sure that you are comfortable with all aspects of their intentions. Read and understand everything that you sign, or don't sign it. As has been proven over and over again in acquisitions, if you don't have statements in writing – you have nothing.

Just like making a major purchase decision like a car or house, you do need to shop around. Don't sign a non-disclosure or confidentiality agreement until you are committed to dealing with a given purchaser. Some non-disclosure agreements make it prohibitive for you to open negotiations with another possible buyer for 6–12 months after discussions with the first one. There may also be a first right of refusal. This means that if you were to start discussions with Buyer A, and then stop them to start again with Buyer B, Buyer A may still have the right to meet or better the offer of any other buyer. So, do your homework well in advance of signing any paperwork.

Some Preliminary Things to Do

Investigate your possible purchasers.

- How long have they been around in their current structure?
- What is their current corporate philosophy? Not just their official one, but look at how they behave as corporate citizens. Winning the employer of the year award is not a solid indicator of what kind of company you are dealing with; check and see how they treat their staff, current and former.
- How do they treat their patients? Is patient care truly #1? Is repeat business #1? Is a resale every 3 years #1? Are they able to balance all three?

Who owns the purchaser? Are they interested in establishing lines of delivery from engineering through manufacturing to end patient care, or do they have other goals? Do you agree with these goals?

Possibly the most important: Ask other people who have sold to them what they thought of the process, and what they think of the company post-purchase. Specifically find references from other people who sold their practice and then contact these people to ask how the transition went, did the company deliver on their stated promises, and would they do it again?

Make sure your company is financially presentable. You will likely require financial statements for the last three years including annual Profit and Loss, and financial statements.

Investigate your own business. Are you charging the recommended fee guide for dispensing fees? Do you enjoy the possible tax write-offs that a private business enjoys? Is your business set up as a tax shelter for your retirement (or should it be)? You don't have to be judgemental with your answers; they simply provide you with the structure to compare against what your business will be post sale. (Will you be happy with that?)

Handing Over the Numbers

Before you make a dozen copies of your company's financials please remember who you are giving these too. If a letter of confidentiality is not in place (it should protect you, not just the purchaser), you are basically handing over some pretty vital information to some possible would be competitors. You can have your statements ready, and give out just the pertinent numbers for discussion purposes.

What should you expect when you hand over numbers? If a confidentiality agreement is not in place you can have a discussion and ballpark numbers. Purchase price, like anything else of this importance is negotiable.

You will require an accountant and a lawyer. This is vital for the protection of you and your company. Most of us are not accountants or lawyers and you will be doing yourself immense disservice if you decide to do everything on your own. Sign nothing until the lawyer has checked it over. If you do not understand or disagree, then STOP until you do!

Don't expect an accountant to evaluate the price of your business in this climate. *It is up to you to shop around*. Expect that this step could take up to a year if you are being diligent. There are no common business models that correctly evaluate our type of business. The accountant needs to help you with tax planning on topics like retained earnings, capital gains exemptions, and other tax minimizing strategies which could save you many thousands of dollars. The last thing you want to do is to trigger massive tax payments that will seriously eat into your selling price.

How Do You Want to Sell the Business?

Do you want the cheque on Friday and you will give them the keys? This can happen but is not preferred. Most purchasers want the former owners to stay on for 2–5 years post sale to help train staff and provide continuity to the patients. The purchase price will probably be spread out as payments over the course of a few years. There may be a portion withheld and paid out upon your business hitting predetermined performance targets. Be sure that you think they are attainable, they may not be renegotiated later. Alternatively, a portion may be withheld and paid out pending your continued employment.

Regarding purchase price paid out related to performance, check the purchaser's references. You may be shocked to find out how seldom this portion is ever paid out! Also, have a good look at the targets – in one example the targets for payout were over 10% growth per year. You shouldn't be selling a mature business if it is capable of 10%

growth per year for the next 3 years. In many cases, negotiate what you want for the purchase price to be delivered on close; the remainder will probably be unachievable and never realized. Oh yes, also expect a significant non-compete clause. Typically such a clause will prevent you from working within a certain distance of current clinics for a given amount of years.

Also expect change, a lot of change. Back to the beginning now: Yes, you may have provided excellent service in the years that you owned your practice, but large companies bring their own systems and procedures with them. How the purchaser will operate is something that you should learn when you are investigating them. Expect that you will have to implement their methods after you have sold. You may have to change computer systems, the sign above the door, how your patients are contacted, marketing, bookkeeping, and advertising (know in advance how these expenses will be allotted or could impact your earn-out). Your roles and responsibilities may increase or decrease. Investigate thoroughly what will happen after you sell and be sure that you are comfortable with it.

In one example, the previous owner was not allowed to advertise during their 3 year earn-out and was saddled with all the labour of bookkeeping and expense of computer systems upgrades that the head company downloaded. This resulted in much more paperwork, less time spent with patients and less incoming traffic which meant that the planned earn-out was not possible or achieved.

Do seriously consider selling to an associate, colleague, or family member. If you examine the possible price that a buyer might pay on close (ignore earn-outs) and examine long-term tax strategies you could conceivably come out ahead and ensure a positive transition for both yourself, your staff and your patients.

Reprinted from Canadian Hearing Report

Suggested Reading

www.audiologyonline.com /articles/your-own-boss-5-tips-6581

hearinghealthmatters.org/waynesworld/2013/financial-value-of-a-hearing-aid-practice
(Look for part 1 and 2.)

www.audiologyonline.com/articles/buying-and-selling-audiology-practice-842

Checklist for Health Information Custodians in the Event of a Planned or Unforeseen Change in Practice

Identify the health information custodian

- ✓ **It is vital to identify who the health information custodian (the custodian) of personal health information records (records) is in the event of a planned or unforeseen change in practice.**
- ✓ **Transfer to an Agent:** Upon transfer to an agent, such as a record storage company, the custodian of the records continues to remain the custodian.
- ✓ The custodian of the records ceases to be the custodian when complete custody and control of the records passes to another person who is legally authorized to hold them.
- ✓ **Death:** Upon the death of a custodian, the estate trustee becomes the custodian until custody and control passes to another person who is legally authorized to hold the records, *or* if there is no estate trustee, the person who assumed responsibility for the administration of the estate becomes the custodian.
- ✓ **Bankruptcy or Insolvency:** If another person (e.g., a trustee in bankruptcy) obtains complete custody or control of the records as a result of the bankruptcy or insolvency of the custodian, then that person becomes the custodian.
- ✓ **Transfer to a Successor:** When complete custody and control of the records is transferred to a successor, who is or will become a custodian, then the successor becomes the custodian.
- ✓ **Transfer to an Archive:** Upon transfer to an archive, there is no longer a custodian.
- ✓ If none of the conditions described above applies when there is a change in practice, then the existing custodian of the records remains the custodian.

Retain records in a secure manner

- ✓ Securely retain all records, either personally or through an agent such as a record storage company.
- ✓ Take steps that are reasonable in the circumstances to ensure that records are protected against theft, loss and unauthorized use or disclosure, and to ensure that records are protected against unauthorized copying, modification or disposal.
- ✓ Retain records in accordance with the retention periods specified by the governing legislation and the policies and standards of practice of the college regulating the custodian's health profession.

- ✓ Retain records that are subject to an access to information request for as long as necessary to allow the individual to exhaust any recourse regarding the request (e.g., complaint to the IPC)
- ✓ Ensure that any agent retained to securely retain records on the custodian's behalf collects, uses, discloses, retains and disposes of records only if the custodian permits the agent to do so *and* the custodian is permitted or required to collect, use, disclose retain or dispose of the information; the collection, use disclosure, retention or disposition is in the course of the agent's duties and not contrary to the limits imposed by the custodian or the law; and any prescribed requirements are met.
- ✓ Enter into written agreements with agents, such as record storage companies, setting out their duties in respect of the records.

Transfer records in a secure manner

- ✓ If records are transferred to another person (e.g., a successor, an archive, or a record storage company), this must be done in a secure manner.

Dispose of records in a secure manner

- ✓ Dispose of records in a secure manner only after the expiry of the specific retention period set out in the governing legislation and in the policies and standards of practice of the college regulating the custodian's health profession.
- ✓ Do not dispose of records that are subject to an access request until the individual has exhausted any recourse regarding the request (e.g., complaint to the IPC).
- ✓ Ensure that records are destroyed in such a manner that their reconstruction is not foreseeable (ie., using cross-cut shredding for paper records).

Notify individuals of the change in practice

- ✓ Where possible, directly notify individuals in person, by letter or by telephone.
- ✓ Where it is not possible to reach every affected individual by direct notification, notify them indirectly by using multiple forms of notification such as posting a notice in the custodian's office, posting a notice on the custodian's website, recording a message on the custodian's telephone answering machine, and advertising in newspapers.
- ✓ Make reasonable efforts to give notice to affected individuals before transferring their records, or if that is not reasonably possible, as soon as possible after the transfer.

Ensure that an appropriate person provides the notice

- ✓ Ideally, notice should be provided by the custodian who is initiating or undergoing the change in practice.

- ✓ If another person becomes the custodian as a result of an unforeseen change in practice, that person should provide notice.
- ✓ If possible, notice should be provided by someone that the individual would expect to have access to their personal health information, such as the custodian, rather than the custodian's agent, such as a record storage company.

Provide sufficient detail in the notice

- ✓ At a minimum, the notice should include:
  - A description of the change in practice;
  - Contact information for the custodian, successor custodian, estate trustee, other person who becomes the custodian, or the custodian's agent, such as the records storage company, that has or will have custody of the records;
  - Information about the length of time the records will be retained by the custodian or the agent of the custodian;
  - Information about how individuals may request access to or correction of their records or request transfer of their records to another custodian, both prior to and following the change in practice.

Think proactively about safeguarding all records

- ✓ Be aware of privacy protective record keeping practices set out in guidelines and legislation.
- ✓ Clearly identify the custodian where health care practitioners work together in a group practice.
- ✓ Establish formal agreements about the obligations of each health care practitioner involved in a group practice with respect to records, in the event of a change in practice.
- ✓ Develop policies and procedures to be followed in the event of a change in practice, such as the procedure for notifying individuals.
- ✓ Make arrangements for the secure storage of records, in the event of a change in practice.
- ✓ Fulfill all business-related obligations (e.g., rental payments) necessary to ensure that the custodian maintains custody and control of records at all times.
- ✓ In the event of a temporary loss of custody or control, take all steps necessary to regain custody or control of the records as soon as possible.
- ✓ Arrange in advance for a future successor.
- ✓ Ensure that any estate trustee appointed is willing and able to fulfill all the obligations of a custodian.

For more detailed information please refer to the document entitled, *How to Avoid Abandoned Records: Guidelines on the Treatment of Personal Health Information, in the Event of a Change in Practice.*

WARNING

Buying Hearing Aids from the Internet?

Serious Health Risks

In Ontario, a prescription is required by law prior to a hearing aid being dispensed.

- Without obtaining the assistance of qualified hearing healthcare professionals, you will not have obtained proper testing, selection, counseling and dispensing.
- Hearing Aids are a Class II Medical Device which must be approved by Health Canada to ensure they are safe and effective.
- Hearing aids over the internet may be counterfeit, cause serious infections, be recalled due to safety concerns or have missing parts.

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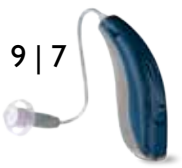


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