

# Hearing Health Matters!



Ontario Association of Professional Audiology Clinics  
Your Hearing Deserves An Audiologist

## What you should know about Hearing Loss and Cerebro and Cardiovascular Disorders

Beyond referring patients for audiological assessments and encouraging treatment of hearing loss, patients should also be informed of the risks they run if they ignore hearing loss – dangers that include certain life-threatening co-morbidities.

**“A growing body of research shows that a person’s hearing health and cardiovascular health frequently correspond.”<sup>1</sup>**

Poor cardiovascular health causes inadequate blood flow and blood vessel trauma to the inner ear. Since the inner ear is extremely sensitive to blood flow, permanent hearing loss can occur.

The two-part Framingham Study included 1,168 patients of the audiology department. Audiogram patterns and cardiovascular variables were compared and controlled for age and gender. Logistic regression models were used to determine cardiovascular risk factors from the audiogram. These models were applied to another group (90 patients) who were from cardiology and geriatric medicine clinics. They too were given audiograms. The results showed a significant relationship between low-frequency hearing loss and cardiovascular disease risk factors. Variables for age, hypertension, diabetes, smoking, and hyperlipidemia were controlled and the low-frequency hearing loss was significantly associated with the following cardio and cerebrovascular disorders:

- Intracranial vascular pathology (stroke and transient ischemic attacks)
- Coronary artery disease
- Myocardial infarction
- Peripheral vascular disease

**Based on those results, Dr. Friedland concluded: “... there is a significant relationship between cardiovascular status and audiometric pattern.”<sup>2</sup>**

- Audiogram patterns represent a **screening** test for those at risk. Patients with low frequency loss should be considered at risk for cardio or cerebrovascular events. Appropriate referrals can be considered.
- Older patients should routinely be questioned about their hearing and made aware of the risks of low frequency hearing loss as it could be an **indicator** of an as of yet undiagnosed cardio or cerebrovascular disorder.
- Patients diagnosed with a cardio or cerebrovascular disorder should be advised to have their hearing tested regularly. Hearing loss can be treated early with hearing aids thereby improving quality of life.

### References

- <sup>1</sup> Better Hearing Institute. Heart Disease and Hearing Loss Linked press release. 2013 (<http://www.prnewswire.com/news-releases/heart-disease-and-hearing-loss-linked-so-get-your-hearing-checked-for-world-heart-day-bhi-advises-224502101.html>)
- <sup>2</sup> David R. Friedland, MD, Ph.D. [http://www.enttoday.org/details/article/496955/Low-Frequency\\_Hearing\\_Loss\\_May\\_Indicate\\_Cardiovascular\\_Disease.html](http://www.enttoday.org/details/article/496955/Low-Frequency_Hearing_Loss_May_Indicate_Cardiovascular_Disease.html)
- <sup>3</sup> The Laryngoscope. Department of Otolaryngology and Communication Sciences, Medical College of Wisconsin. Audiometric pattern as a predictor of cardiovascular status: development of a model for assessment of risk. 2009. Friedland DR, Cederberg C, Tarima S. (<http://www.ncbi.nlm.nih.gov/pubmed/19235737>)
- <sup>4</sup> American Journal of Audiology. The Influence of Cardiovascular Health

Greater emphasis is being placed on hearing health.



Patients are encouraged to address hearing loss because of dangers that include life-threatening comorbidities.

**The Ontario Association of Professional Audiology Clinics (OAPAC)** represents independent audiology practices in Ontario.

### Like Physicians, Audiologists of OAPAC

- ✓ Own and manage their practice
- ✓ No quotas, no franchises, no conflict of interest
- ✓ Assess and make appropriate recommendations
- ✓ Share the licensed Act to prescribe hearing aids
- ✓ Offer full scope of practice to all ages
- ✓ Are regulated...No misleading advertising, no testimonials

**To find an OAPAC Clinic near you, call  
1-844-41-2-HEAR (4327)**



Audiologists spend 7 to 9 years in University. The minimum requirement to practice in Ontario is a Masters Degree in Audiology or equivalent.

With so many places to refer your patients, it becomes difficult to choose what is best for your patient.

- As independent practices we are not limited. We associate with 10 different hearing aid manufacturers.
- As audiologist owned-and-operated clinics, our services are fully regulated which means that your patients are fully protected.

**Sudden hearing loss? Call us immediately!**

**1-844-41-2-HEAR (4327)**

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