

HEARING LOSS AND OUR BRAIN HEALTH

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Over the past 15 months, covid has made us keenly aware of the importance of communication with our loved ones and friends. Being distanced and separated from them has been hard largely because of less opportunities for in person communication. As we anticipate moving into more social interactions, it is important for us to be aware of any communication barriers such as hearing loss, so we can manage them for optimal communication and social interactions in future.

Hearing loss is more prevalent in Canada than most of us probably realize. In fact, nearly 1 in 5 Canadian adults has some hearing loss, as do 1 in 10 children. Some of the many reasons for this including genetics, exposure to noise or pollutants and accidents and infection. One of the fastest growing populations with hearing loss is seniors. Nearly **half** of Canadian seniors experience enough hearing loss that it **affects their ability to hear speech correctly**.



Did you know that hearing loss can affect how our brain functions? In 2017, the Lancet published the Dementia Commission Report which highlighted risk factors related to Dementia. The risk factors that we can modify were found to include high blood pressure, obesity, smoking, depression, social isolation, physical inactivity, diabetes, lack of education and hearing loss. Hearing loss was in fact identified as the **highest potentially**

modifiable risk factor for Dementia. This means that if we treat hearing loss, we can potentially reduce the cognitive impact and risk for Dementia.

In an August 2020 update to the Lancet's Dementia Commission report, additional potentially modifiable risk factors were added to the list based upon updated large scale peer-reviewed findings including head injuries, excessive alcohol consumption (more than 21 units per week), and air pollution (see infographic below). Not only was **hearing loss confirmed to be the highest potentially modifiable risk factor again**, but they also reported that those who used hearing aids were **significantly protected from these changes**. The Lancet Commission findings support the importance of addressing hearing loss early with the use of available technology to help mitigate Dementia.

Additional international prospective studies designed to evaluate the protective function of wearing hearing aids on brain function have confirmed these findings. A growing body of research supports that although untreated hearing loss leads to an increase in cognitive deterioration and memory changes over time, this can be largely reduced by using hearing aids appropriately when indicated.

These are a few of the first studies to provide concrete evidence that hearing aid use preserves cognitive function and memory.

Identifying hearing loss.

We are not very accurate at identifying our own hearing loss until it is very severe. Since hearing loss is usually gradual in nature, we often get used to living with our hearing loss and make accommodations or excuses for missing or mistaking sounds. In fact, the Canadian Health measures study (2012/13) showed that 70% of the thousands of Canadians in their study were unaware that they had hearing loss. It is therefore often our spouses, close family or friends who notice our hearing deficit first.



Signs of hearing loss.

If you are concerned about your hearing or the hearing of a loved one, it is important to understand the things to look for. The most common early signs of hearing loss include the feeling that you can **hear** people speaking, **but not understand** what they are saying clearly. This occurs because the high frequency sounds or high pitches (think birds chirping) deteriorate first in our hearing system. This deterioration removes small but important consonant sounds, resulting in a reduction of the clarity of speech or hearing speech in a muffled or mumbled manner.

The Advanced Primary Care clinical team follow an annual checklist which will help determine if you should receive a thorough hearing evaluation. If you are concerned about your hearing or



the hearing of your loved one, you can also self-refer to our Audiology clinic for a thorough hearing evaluation.

Treating hearing loss.

Early identification and appropriate treatment of hearing loss is key for brain health. There are a multitude of options to improve your hearing should your test results show challenges. These include hearing aids, special microphone systems that a spouse can wear, or you can put on a table at a cafe, tv systems, and even research based online listening training systems to help you listen better in noise. Treatment options today are very advanced and easy to use. We are here to guide you with appropriate resources that may help your specific areas of challenge.

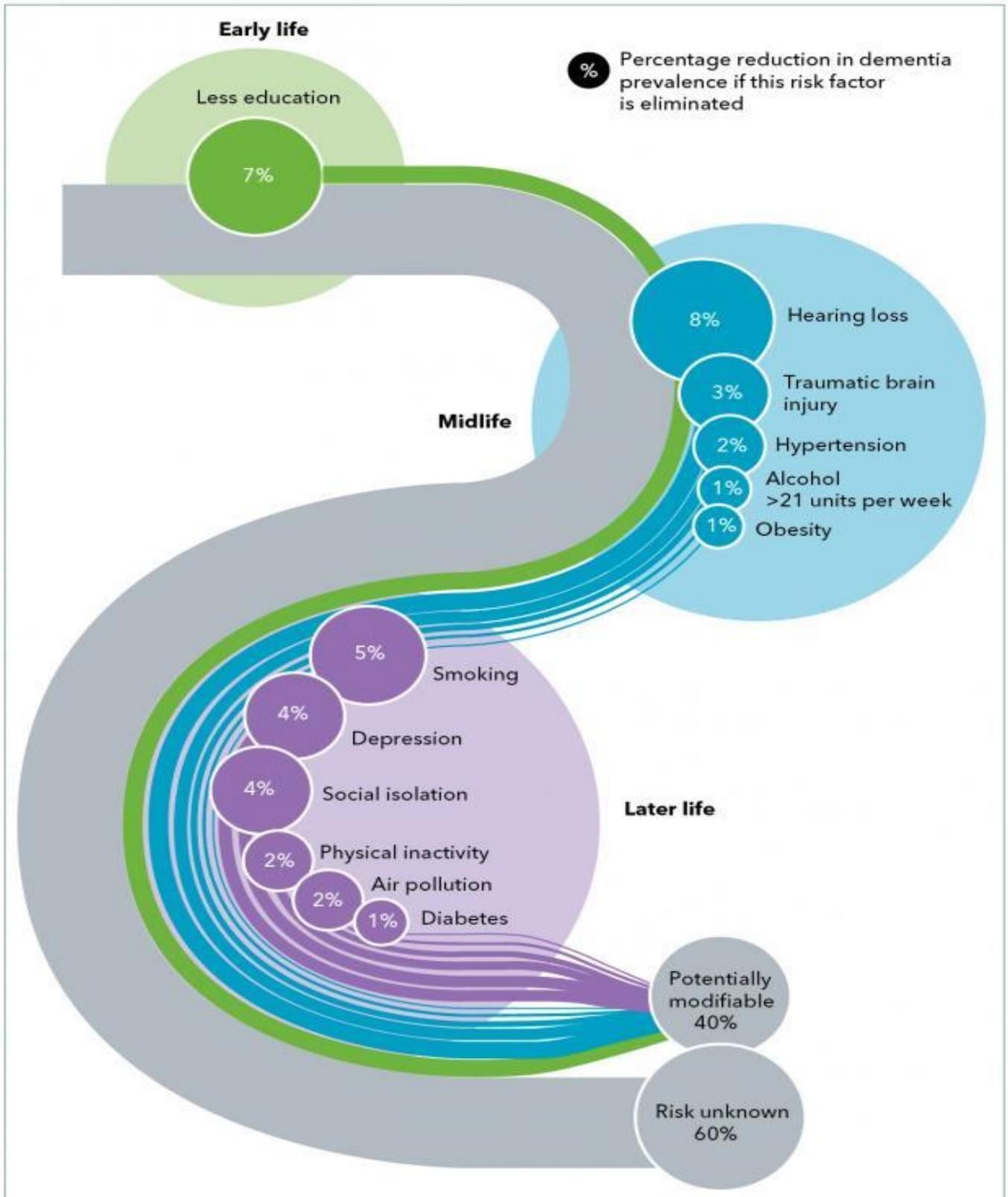


Further resources

I hope you find this information useful to consider and encouragement to ensure that you and your loved ones are doing everything you can to address hearing and brain health.

Visit our website at www.audiologyinnovations.ca for educational information about hearing health and to sign up for our monthly e-newsletter or contact us for appointments or questions about your hearing 403-802-6022.

Dr. Scarff is a PhD Audiologist who leads a talented team of Audiologists in caring for people with hearing loss. Her team provides leading edge resources based on recent science to their patients to improve all aspects of hearing health, from prevention to treatment. The research findings discussed were based upon International longitudinal research including the English longitudinal study (2020), research from the University of Bordeaux, and Universities in the US, published in The Journal of American Geriatric Society and The Journal of the American Medical Association Otolaryngology Head and Neck Surgery in 2018 and 2019



Population attributable fraction of potentially modifiable risk factors for dementia