HEARING HEALTH MATTERS

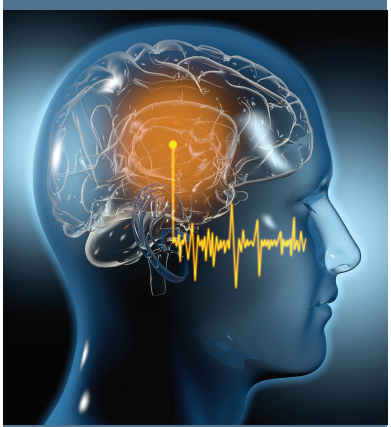
FOR PATIENTS OF ADVANCED HEARING / APRIL 2024

Advanced HEARING ONTARIO

BrainHQ Facts

Brain Uses 20% of Blood

Approximately 20% of the blood flowing from the heart is pumped to the brain. The brain needs constant blood flow in order to keep up with the heavy metabolic demands of the neurons. Brain imaging techniques such as functional magnetic resonance imaging (fMRI) rely on this relationship between neural activity and blood flow to produce images of deduced brain activity.



Your ears collect sound but it's your brain that understands it.

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Hearing loss is the #1 modifiable risk factor for dementia. The Lancet, an internationally trusted medical journal, put together a Commission on the Prevention, Intervention, and Care of Dementia. The 2020 report discusses 12 modifiable risk factors that might prevent or delay up to 40% of dementias: less education (7%), hearing loss (8%), traumatic brain injury (3%), hypertension (2%), alcohol (2%), obesity (1%), smoking (5%), depression (4%), social isolation (4%), physical inactivity (2%), air pollution (2%), and diabetes (1%). The percentage is the reduction in dementia prevalence if this risk factor is eliminated.

Hearing loss is the #1 modifiable risk factor at 8%. People with untreated hearing loss have higher rates of depression, are more likely to socially isolate, and are less physically active. When combined, that potentially adds an extra 10% risk reduction, making it a total reduction in dementia risk of 18% when hearing loss is treated.

Depression and hearing loss. The research evidence clearly points to an association of hearing loss with clinically relevant depression symptoms. Hearing loss negatively impacts quality of life, lowers levels of happiness, increases rates of anxiety, etc. Age-related hearing loss negatively affects older adults' mental health. Studies have found that hearing aid use improves levels of depression and can promote greater quality of life in older adults.

Social isolation and hearing loss. Hearing loss makes it difficult for people to communicate with others. Reduced social interaction and a lack of social support can cause loneliness and social isolation. Hearing loss may have important implications for the psychosocial and cognitive health of older adults. Studies have found that hearing aid use improves feelings of loneliness and social isolation.

Physical inactivity and hearing loss. A team of researchers from the National Institute on Aging and Johns Hopkins University noted that people with mild to severe hearing loss tended to exercise less than people with normal hearing. And, the more severe the hearing loss, the more likely the participant was to be inactive for longer periods during the day. Compared to people with normal hearing, those with hearing loss were more likely to have worse scores for physical function, balance, and walking speed, and a faster rate of physical decline. Studies have found that hearing aid use improves physical activity. For example, people who wear hearing aids have better walking endurance than those who do not treat their hearing loss.

Hearing loss and dementia. How are the two linked? Dr. Frank Lin at John Hopkins University indicates that having a hearing loss can increase the risk of dementia by almost 5x. The reason for this is because with hearing loss, the brain works harder to make out conversations. This strain on your brain is called increased 'cognitive load'. Hearing loss also causes structural changes in the brain such as an accelerated shrinking of the brain. And, people with hearing loss are less likely to be socially engaged which is important to remaining intellectually stimulated. In a recent study, hearing aids were shown to delay or slow cognitive decline's progression. Specifically, hearing aids reduced the rate of cognitive decline in older adults at high risk of dementia by almost 50% over a three-year period.

Ask One of Our Audiologists or Hearing Instrument Specialist

Q: What are some of the early signs of hearing loss, and when should I see the audiologist?

A: The first symptom of hearing loss for most patients is difficulty hearing in complex listening environments. If you take the time to reflect truly and deeply on your communication breakdown, we believe you will begin to recognize some of the initial symptoms of hearing loss. Are you having any difficulty when there are a few people at the kitchen table? Or when the kids come over? Or when communicating with your grandchildren? Or when you are at a social gathering (i.e. sharing a meal with friends and you can't seem to follow the conversation, yet all the other people seem to be enjoying themselves and following the conversation)? It is in these types of scenarios when hearing loss can really start to rear its ugly head and you realize that you are no longer an active part of the conversation. The result is a slow retraction from contributing to the conversation because you may feel embarrassed, and thus you continue to further isolate yourself and find yourself not truly engaging in conversations and relationships. And this is how even a mild hearing loss can really begin to impact your quality of life and relationships with others.

Like every major medical condition, the key to successful management of the disorder is early intervention. **"Catch it early and treat it early!"**

HEARING CARE IS HEALTH CARE

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Advanced HEARING ONTARIO

April is Parkinson's Awareness Month – a month dedicated to spreading knowledge, understanding, and awareness of Parkinson's disease.

What is Parkinson's? It is a progressive and complex neurological (brain) disorder. It has motor (movement) symptoms such as tremor, slowness in movement, rigidity; and non-motor symptoms such as cognitive impairment and dementia, sleep disorders, gastrointestinal issues.

According to Parkinson Canada, more than 100,000 Canadians live with Parkinson's and 30 more are diagnosed every day. The average age to develop Parkinson's is around 60. However, young onset Parkinson's (before age 40) occurs in 5-10% of people diagnosed. Michael J. Fox, a Canadian, now retired well-known actor, and spokesperson for Parkinson's, was diagnosed at 29 years of age.

What's the link between Parkinson's, hearing loss, and cognitive decline? Sensorineural hearing loss occurs when the inner ear and/or the hearing nerve becomes damaged. It is the most common type of hearing loss which is a progressive degenerative disease, not unlike Parkinson's. Since the majority of people who are 60 years old or older have significant hearing loss, a majority of people with Parkinson's have significant hearing loss that will worsen over time.

Extensive evidence supports hearing dysfunction in people with Parkinson's. For example, sensorineural hearing loss and impairment to the cochlea (the sensory organ of hearing in the inner ear) are more severe in people with Parkinson's. And, the processing of auditory information e.g. hearing in background noise, is more severely impaired in people with Parkinson's.

Why is hearing loss more prevalent in people with Parkinson's? Movement is normally controlled by dopamine – a chemical in our brain. When the cells that normally produce dopamine die, the motor symptoms of Parkinson's begin to appear e.g. a tremor. As the disease progresses, the non-motor symptoms e.g. difficulty hearing, cognitive decline, begin to appear. A lack of dopamine may be related to auditory issues because dopamine also helps with sensory processing. Cognitive decline is common in people with Parkinson's. Although there is an ongoing debate as to the exact cause of cognitive dysfunction, it is agreed that it is a result of changes in the chemicals (e.g. dopamine, acetylcholine) in the brain of people with Parkinson's.

Research shows that untreated hearing loss is associated with poorer cognitive function and can contribute to dementia. That means that untreated hearing loss in people with Parkinson's may make cognitive dysfunction worse for them. Not only is it important for all people to treat their hearing loss, it is especially important in people with Parkinson's. Treating hearing loss optimizes communication with family members, caregivers, friends, and medical professionals.

CATCH EARLY, TREAT EARLY.

Call us today to schedule your comprehensive assessment.

Renee Giroux

Doctor Of Audiology, Audiologist

Completed the Certified Tinnitus Care Provider Course

Completed the Certified Dementia Practitioner Course

Brigitte Giroux

Hearing Instrument Specialist

Completed the Certified Tinnitus Care Provider Course

Completed the Certified Dementia Practitioner Course

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COGNITIVE GAME OF THE MONTH

CRYPTOGRAM

Instructions: Fill in the missing letters and discover the hidden message

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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