



BrainHQ Facts



No Pain in the Brain

There is no sense of pain within the brain itself. Although the brain has billions of neurons, it has no pain receptors. This fact allows neurosurgeons to probe areas of the brain while the patient is awake. Feedback from the patient during these probes is useful for identifying important regions, such as those for speech, so that those areas can hopefully be spared. Headaches are not brain pain. When you have a headache, the pain is coming from the surrounding tissues like the blood vessels and meninges (membranes that cover the brain), which do have pain receptors.



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

February is

Heart
Month



February is Heart Month

February is not just about the symbolic heart on Valentine's Day, but is also Heart Month as in the vital organ. Heart Month, a time to bring attention to the importance of cardiovascular health, and what we can do to reduce our risk of cardiovascular disease. Why is this important? Because heart disease is the second leading cause of deaths in Canada behind cancer

But what does the heart have to do with your ears?

Over the years, the relationship between heart disease and hearing loss has been studied. Although there is no direct causal link (i.e. heart disease causes hearing loss) between heart disease and hearing loss, there is a large body of evidence suggesting a strong relationship between the two. The ear is supplied by several small arteries and blood vessels and requires a sufficient blood flow to maintain proper function. Cardiovascular disease can reduce blood flow to the ear which causes damage to different parts of the auditory system. This damage typically results in a sensorineural hearing loss which is permanent and is managed with prescriptive hearing technology.

When the heart is not healthy, it does not pump blood as well, which can reduce blood flow to the inner ear. Studies have shown that people with diabetes, high blood pressure, obesity, high cholesterol levels, smoking and other cardiovascular risk factors have an increased risk of hearing loss. And, higher combinations of risk factors increased the risk of hearing loss.



Ask One of Our Audiologists

Q: I'm ready to start treating my hearing loss. What's the best hearing aid?

A: It depends. There isn't only one! Advances in technology specifically designed to support the cognitive aspects of hearing loss, not just make things louder, have significantly improved patient care and patient satisfaction. As an independent private practice, we work with a number of manufacturers, not just one. Our knowledgeable and experienced Audiologists will gather the information required to determine which device is best for you. Comprehensive case history, advanced audiological and cognitive testing, personal preferences of the patient, current technological advancements, etc., all factor into the prescription of hearing devices.



And what about the brain?



We cannot forget about the other vital organ we have, our brain. Heart health impacts brain health too! Cardiovascular disease can significantly increase the risk of brain disease, including stroke, cognitive impairment, and dementia. The brain is filled with very small blood vessels too. Changes in heart health can reduce blood flow to the brain, it can cause structural changes in the brain, and it can cause neurodegeneration in the brain.

In fact, Vascular Dementia, the second most common form of dementia after Alzheimer's Disease, is caused by decreased blood flow that damages brain tissue.

Reducing your risk of cardiovascular disease also reduces your risk of hearing loss and reduces your risk of cognitive decline and dementia.

Good blood flow is important for your heart, your hearing and your brain. Prevention is key. To reduce your risk of heart disease, hearing loss, and cognitive decline, you can:

- be physically active: aim for 150 minutes of moderate-intensity activity each week
- limit highly processed foods and eat a variety of healthy foods: fruits, vegetables, whole grain, lean meats, fish and seafood
- protect your ears: avoid loud noises and get prescriptive hearing technology if you have a hearing loss
- stay mentally active: read, play board games, learn a new skill
- stay socially connected: connect with friends and family to prevent social isolation and loneliness
- stop smoking and limit alcohol
- get proper sleep
- manage stress

Heart Month is an excellent time to reflect and take steps (pun intended!) to making positive and healthy choices for today and for your future!

Ready to treat your hearing loss? Call us today or visit us at advanced-hearing.com.

CATCH EARLY, TREAT EARLY.

Call us today to schedule your comprehensive assessment.

AJAX 905-426-4000

OSHAWA 905-723-2273

PICKERING 905-831-8311

UXBRIDGE 905-852-8888

WHITBY 905-666-7726

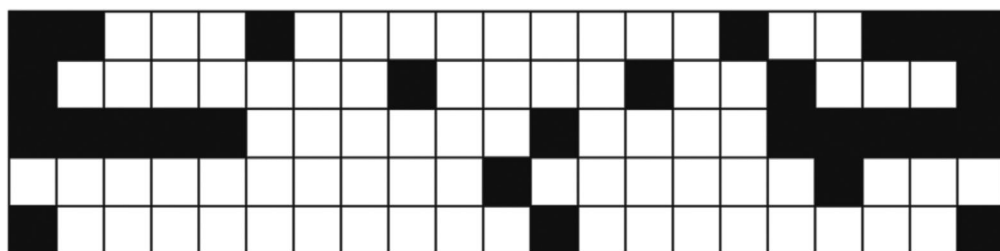
REFERENCES:

Hull, R. H., & Kerschen, S. R. (2010). The influence of cardiovascular health on peripheral and central auditory function in adults: A research review. *American Journal of Audiology*, 19, 9-16.

Mick, P. T., Kabir, R., Pichora-Fuller, M. K., Jones, C., Moxham, L., Phillips, N., Urry, E., & Wittich, W. (2023). Associations Between Cardiovascular Risk Factors and Audiometric Hearing: Findings From the Canadian Longitudinal Study on Aging. *Ear and hearing*, 44(6), 1332-1343.

Saeed, A., Lopez, O., Cohen, A., & Reis, S. E. (2023). Cardiovascular Disease and Alzheimer's Disease: The Heart-Brain Axis. *Journal of the American Heart Association*, 12(21), e030780.

COGNITIVE GAME OF THE MONTH



I N L D T

T A E I N T I A E E N I O

H D H F S T B G L T F S O T T O F H E

O R E V I N R E N G M M C S E N T F A

M P E I R E A G L E O S A E M S R T I O R

Fallen Phrase

Instructions: The first step is to fill in any blank spaces with just one letter underneath. Next, figure the two word options. Now, just use trial and error to keep filling in the blanks until you get a finished puzzle.