

# BAYCREST BULLETIN

*A snapshot of Baycrest news and events - January 2022*

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## Protecting Your Brain Health at Every Age and Stage of Life

Dementia starts to develop decades before the initial memory loss symptoms appear. Fortunately, research has shown that there are many things we can do to help maintain our brain health throughout our lives to help us age without fear.

### Youth

Throughout childhood and adolescence, our brains develop incredibly rapidly, allowing us to learn new things very fast. This is a great time to learn a second language or to play an instrument, as there is a growing body of evidence supporting the protective effects of these things on brain health.

### Adulthood

As adults, it can be challenging to prioritize self-care, but it's important to do so. For example, exercise reduces the risk of developing dementia and has also been linked to decreased stress and improved mental health. Also beneficial for brain health is proper nutrition. Research consistently shows that a heart-healthy diet high in fruits, vegetables, whole grains and fish helps preserve brain health. Finally, it's important to prioritize sleep.

Research suggests that people who get less than six hours of sleep a night have an increased risk of developing dementia. Aim to get at least seven hours of sleep, or even eight hours, if possible.



*Continued on the next page*

### Older Adulthood

For many of us, our sixties mark the transition to retired life and the golden years, bringing us more freedom and time for leisure. However, it is also critical during this time to keep your brain active to protect your brain health. Do things you enjoy and find mentally stimulating – for example, reading, playing cards, listening to lectures or visiting museums and galleries. Social connection is another key factor for brain health. When we are lonely, we experience increased stress,

which may be damaging to parts of the brain involved in forming memories. Finally, don't put off treating hearing loss, which is an important factor in protecting our brain health and quality of life as we age.

Want to learn more? Dr. Howard Chertkow shares 15 things we can do to reduce our risk of dementia at [www.baycrest.org/reduceyourdementiarisk](http://www.baycrest.org/reduceyourdementiarisk).

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## For Our Brains, Older Adulthood May Begin In Our Early Sixties



After gradually declining throughout our adult lives, cognitive performance shifts to a more rapid decline in our early sixties, reveals a new Baycrest study.

The results of this study, published in the *Journals of Gerontology*, will help researchers and clinicians better understand normal cognitive decline, allowing them to catch abnormal changes in cognition earlier and ultimately helping to protect older adults' brain health as they age.

"We know that older adults tend to perform worse on cognitive tests than younger adults do, but studies typically assess age-related changes in cognition by comparing groups of older participants to groups of younger participants, often leaving out the period of midlife. Our study is one of the first to look at the continuous cognitive changes across age, and specifically when the shift to older adulthood occurs," says Dr. Annalise LaPlume, postdoctoral fellow at Baycrest's Rotman Research Institute (RRI) and lead author of this study.

In the study, the researchers looked at data from 40,000 people aged 18 to 90 who completed the Cogniciti Brain Health Assessment, developed by Baycrest. Participants took the test in their own homes by going to the Cogniciti website (<https://cogniciti.com/>). The test takes around 20 minutes to complete and consists of a background questionnaire and four cognitive tasks. The background questionnaire includes details of participants' age, sex, level of education and specific health conditions that may affect cognition, such as high cholesterol, Alzheimer's disease, anxiety, insomnia or other sleep disorders, diabetes and stroke.

"The Cogniciti Brain Health Assessment is a powerful tool for rapid and reliable cognitive screening, says Dr. LaPlume. "It was specifically designed for older adults and includes tasks sensitive to changes in the brain associated with aging and age-related cognitive disorders."

The study revealed two distinct periods of cognitive performance: a gradual decline from the age of 18 until the early sixties, followed by more rapid decline until age 90. The researchers also found increased individual differences between people's cognitive performance starting in the early sixties, suggesting the importance of factors besides age.

"There are many things we can do to maintain our brain health and decrease our chances of developing mild cognitive impairment or dementia. These include eating a heart-healthy diet, exercising on a regular basis, managing our stress, sleeping well and staying socially engaged," says Dr. Nicole Anderson, senior scientist at the RRI, associate scientific director of Baycrest's Kimel Family Centre for Brain Health and Wellness and senior author of this study.

This research was supported by the Natural Sciences and Engineering Council of Canada (NSERC) and the Alzheimer Society of Canada.



# New Glassman Chair in Neuropsychology Is Helping Older Adults



Baycrest is pleased to welcome Dr. Morgan Barensse as the new Dr. Max and Gianna Glassman Chair in Neuropsychology, a joint position at Baycrest and the University of Toronto. A leading neuroscientist in the field of aging and brain health, Dr. Barensse's work is helping older adults better remember the events of their lives.

"Memory is one of the most remarkable feats of the human mind," says Dr. Barensse, Canada Research Chair in Cognitive Neuroscience, senior scientist at Baycrest's Rotman Research Institute (RRI), director of the Toronto Neuroimaging Facility and professor of psychology at the University of Toronto. "I want to understand how the brain supports memory, and how we can leverage that knowledge to support older adults."

With support from the Centre for Aging + Brain Health Innovation, powered by Baycrest, and others, Dr. Barensse and her colleagues have created a smartphone-based app to boost everyday memory in individuals at risk for Alzheimer's disease. This novel digital memory aid, called the HippoCamera, is designed to mimic memory encoding and

retrieval performed by the hippocampus, a part of the brain that is critical in supporting our memories.

Designed for older adults, the app is easy to use and has only two buttons: record and replay. First, the record function targets memory encoding – that is, what happens in the hippocampus when we first experience an event and "learn" a memory. Second, the HippoCamera's replay function helps users "study" their memories with powerful eight-second memory cues using speeded-up videos and verbal descriptions captured by the user.

Early research results demonstrate that when users capture one memory per day and replay their memory cues once per day using the HippoCamera, they remember close to 50 per cent more details from events.

"We are thrilled to welcome Dr. Barensse, whose work will further our understanding of how the brain supports memory and ways to apply this critical knowledge to help older adults make the most out of life," says Dr. Allison Sekuler, Vice President, Research at Baycrest.

## CABHI Summit 2022: Empowered Aging Through Innovation - March 23-24, 2022

On March 23-24, 2022, the Centre for Aging + Brain Health Innovation (CABHI), powered by Baycrest, will host its fourth annual Summit. The CABHI Summit is a virtual gathering that brings together innovators, investors, older adults, caregivers and healthcare providers to explore innovations and investments in the longevity sector – particularly, the ways in which agetechnology is helping older adults and caregivers make choices that are right for their own aging journeys.

This two-day global event will feature stellar speakers, engaging sessions on topics such as social connectedness in the digital age and a robust virtual exhibit hall filled with leading-edge aging and brain health technologies and services

for older adults and caregivers. Register for Day 1 of the CABHI Summit for free at [cabhi.com/summit](https://cabhi.com/summit) or use the code "friendsofcabhi" to get 20% off your ticket for Day 2.



## How to Wear a Mask

For the safety of everyone, please wear your mask properly. Make sure your mask covers your nose, mouth and chin.



Please also wear eye protection when you are in close contact with a patient or resident.



# Innovation Updates - Upcoming Webinars



## Make Living Safely, Happily and Longer at Home Your New Year's Resolution

Baycrest@Home is a novel service for older adults and their families and offers health, wellness and education programming through a virtual platform, delivered directly to you in the comfort of your home. This includes a daily schedule of live, interactive experiences such as exercise, music, art, culture and storytelling that stimulate the mind, body and spirit. Members can also connect with clinical experts to answer a range of medical questions, address safety issues in the home and get help navigating the health system. Go to [baycrestathome.ca](https://baycrestathome.ca) to learn more and sign up for free programs and events.

## Baycrest@Home Webinar: Everything You Need To Know About LTC - Thursday, January 20, 2022



Kicking off the 2022 caregiver webinar series, Kim Thornhill from Home and Community Care Support Services will answer frequently asked questions about long-term care. This presentation will cover topics such as eligibility requirements, waitlist prioritization, bed offers (and what to do when you receive one) and new government directives that have changed the long-term care landscape in Ontario. This webinar will be held on Thursday, January 20, 2022 from noon to 1 p.m. All are welcome to attend and ask questions. **To register, visit [bit.ly/CaregiverWebinarJan2022](https://bit.ly/CaregiverWebinarJan2022)**

## Updates, Questions and Comments

The health and well-being of everyone at Baycrest is our priority, and we are doing everything we can to serve the needs of our residents and patients during this time. Baycrest is committed to communicating with you about COVID-19. For the most up-to-date information, please visit the intranet

or [www.baycrest.org](https://www.baycrest.org) and sign up to get email notifications when there are COVID-19 updates. Please also refer to the list of Frequently Asked Questions, which we continue to update. If you have questions or comments, please email [covidquestions@baycrest.org](mailto:covidquestions@baycrest.org)

## January is Alzheimer's Awareness Month

Visit [baycrest.org/AlzheimersMonth](https://baycrest.org/AlzheimersMonth) for resources and tools to support individuals impacted by dementia and their caregivers - so we can all *Fear No Age™*.



**FEAR NO AGE™**  
**Baycrest**



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