

**WOMEN'S BRAIN
HEALTH INITIATIVE
IMPACT REPORT 2021**



Women's Brain
Health Initiative

WOMEN'S BRAIN HEALTH INITIATIVE (WBHI)

CELEBRATING OUR FIRST DECADE

Since our inception in 2012, and thanks to many friends and donors, WBHI has grown from the seed of an idea into an important, trusted voice across the globe for women's brain health. Together, we broadened an essential conversation about aging, dementia, and research equity.

WBHI has contributed to a profound shift in scientific thinking: diseases like dementia do not affect the sexes equally, so research must explore the differences between women and men. Fortunately, things are changing.

In addition to our own research that better suits women's needs, we share the latest brain health scientific findings through our compelling preventative health education programs, so there is a greater understanding by the public of the best ways to prolong their cognitive vitality.

And through efforts like ours, an ever-increasing number of people are now recognizing that dementia need not be inevitable; rather, we can make certain lifestyle choices to help protect and preserve our brain health.

Although the Pandemic continued to create challenges for so many, WBHI is grateful to our many generous donors and partners, and our incredible team, for everything that has been done over the past year to keep pushing forward with the cause of women's brain health. We are eternally grateful for the support that allowed us to continue to grow and make significant impact on the lives of so many.





OUR INITIATIVES

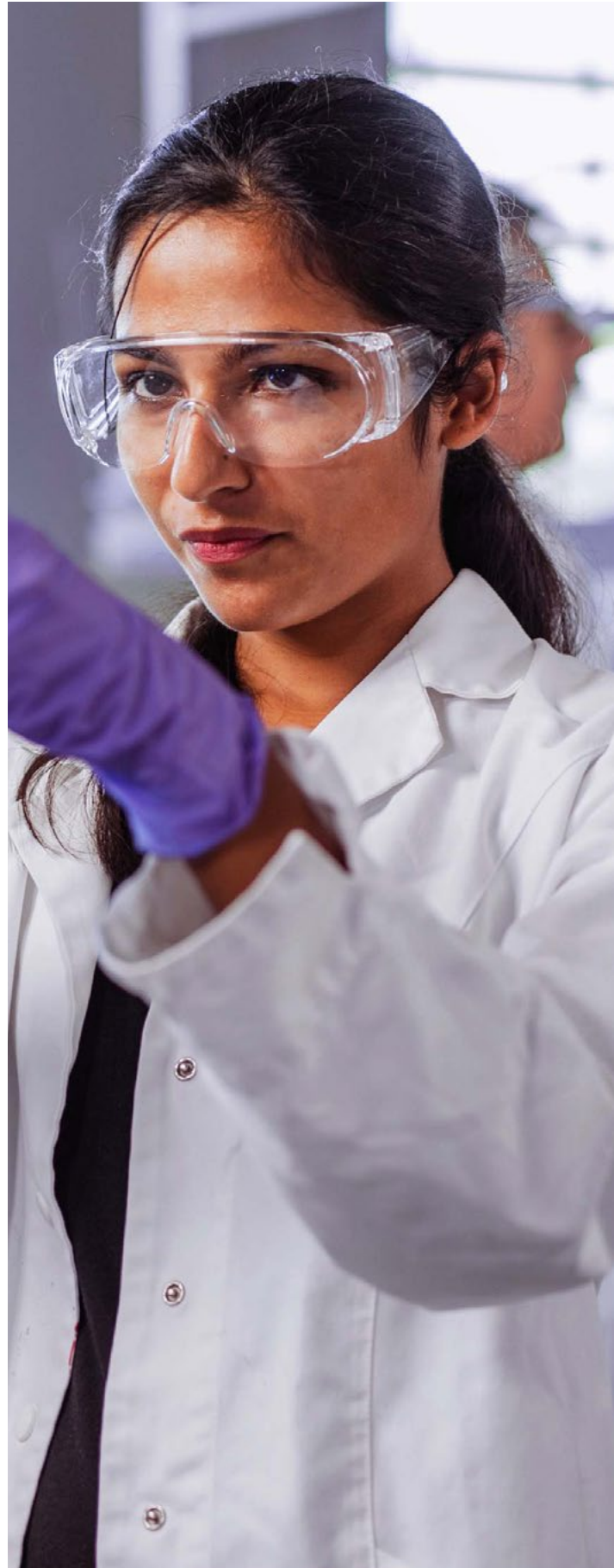
RESEARCH

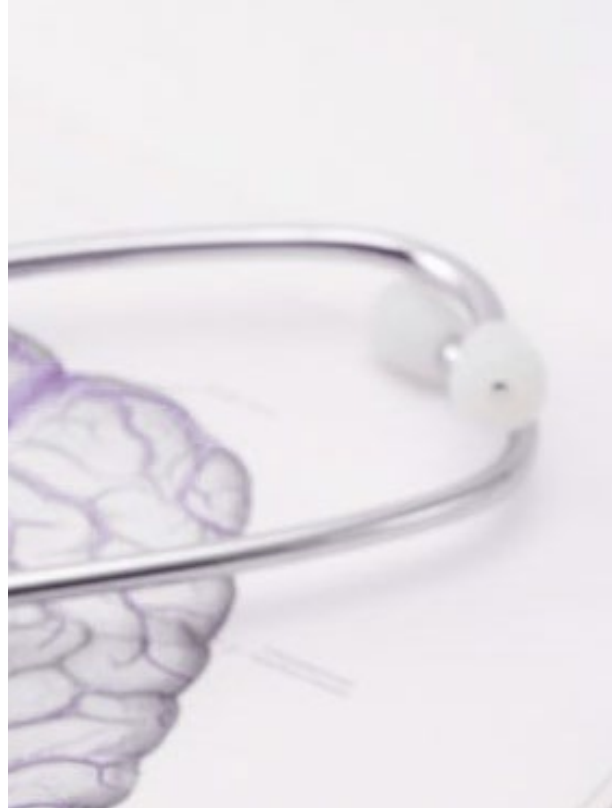
To help find answers for our daughters and granddaughters, and the women in our lives, WBHI invests in research to combat brain-aging diseases that disproportionately affect women.

WBHI continues to fund Dr. Gillian Einstein, the Joyce and Wilfred Posluns Chair in Women's Brain Health and Aging, to discover how midlife events affect later women's brain health and answer the question as to why more women than men have Alzheimer's disease.

WBHI also supports the Sex & Gender cross-cutting theme of the Canadian Consortium on Neurodegeneration and Aging (CCNA), a multifaceted national research effort involving more than 350 researchers and clinicians who are studying age-related neurodegenerative diseases, including Alzheimer's disease and other types of dementia.

WBHI, together with Brain Canada, funds sex and gender expansion grants, with a focus on aging, neurodegeneration, or stroke. The six grants are designed to encourage researchers to incorporate





sex and gender-based analysis (SGBA)-driven research hypotheses into their existing work by contributing to overcoming barriers in research and creating a foundation for sex and gender considerations to become standard practice within the scientific community. Funding for these grants was made possible through the Stand Ahead® Challenge, WBHI's annual campaign to support women's brain health and raise money for vital sex-based research and preventative health education.

WBHI, together with The Citrine Foundation of Canada, funds an exploratory research project on memory, aging, and the long-term effects of hormone therapy in trans individuals. This exciting cutting-edge research is being conducted by Dr. Ruebs Walsh under the guidance of Dr. Gillian Einstein at the University of Toronto.

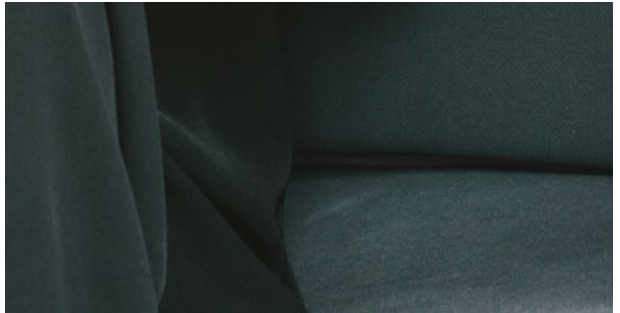
WBHI, together with Brain Canada and Canadian Institutes of Health Research (CIHR), funds Dr. Mario Masellis, scientist with Sunnybrook Research Institute, as part of the European Union Joint Programme on Neurodegenerative Disease Research (JPND)'s initiative on linking pre-diagnosis disturbances of physiological systems to neurodegenerative diseases.

The funding will allow Dr. Masellis, in collaboration with researchers in Italy, Sweden, the Netherlands, and the Czech Republic, to examine the interplay between an individual's genetic, demographic (including sex, age, and education), and cardiovascular background to determine how they may interact to increase the risk of developing dementia and/or worsen how dementia is presented. Funding for this grant was also made possible through the monies raised by the Stand Ahead® Challenge.



MIND OVER MATTER®

In the fall of 2021 WBHI was awarded \$716,000 from the Dementia Strategic Fund for a two-year brain health awareness campaign. The campaign will build on WBHI's impactful Mind Over Matter® publication to include a podcast series, educational videos, and an interactive app that will put the power to prevent or delay dementia into the smartphones, tablets, and computers of every Canadian.





READ

Mind Over Matter® magazines advocate healthy living and effective ways to reduce dementia and other cognitive impairment risk. The easy to understand, evidence-based articles are a practical resource for maintaining healthy minds. The content promotes compassion, tackles stigma, and lends support to those living with dementia and mental health illnesses, and those who care for them.

Thanks to the ongoing and tremendous support from our partners Brain Canada Foundation and Health Canada, WBHI created and produced two editions of Mind Over Matter® in 2021. Our 12th volume was distributed in May, and our 13th edition was produced in November. Printed in both English and in French, 137,500 copies of each edition were distributed to households across Canada through The Globe and Mail, The Toronto Star, Ottawa Citizen, and Montreal Gazette, to doctors' offices, and at WBHI events and speaking engagements. Volumes 14 and 15 are slated for 2022.

Each edition is also available as an e-zine, accessible from the WBHI website. <https://womensbrains.me/MOMMag>

THE BOOK CLUB & SOCIAL GROUP INITIATIVE

Requests for Mind Over Matter® magazines continued throughout 2021. We now have 193 Book & Social Group Clubs in Canada, 14 from the U.S., and 1 from Europe, and with the support of Brain Canada, can provide even more people and diverse communities with access to the valuable brain health information contained in the magazines. Individual requests, which were successfully fulfilled, totalled 1175.



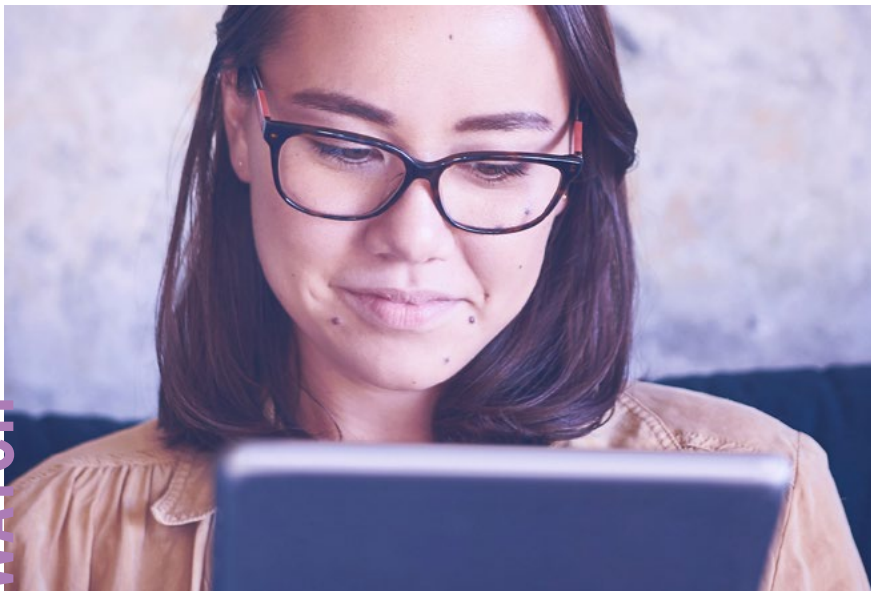


LISTEN

The new Mind Over Matter® initiatives are made possible thanks to our partners, Telus, RBC, Home Instead, RB33, York University, BitBakery, and The Citrine Foundation of Canada.

We are constantly striving to provide the ideal brain health content and would greatly appreciate our supporters feedback on our podcast and video episodes. You can also help shape the future of women's brain health by participating in the development of our upcoming mobile app. To find out more, please visit:

<https://womensbrains.me/Mind>



WATCH



DOWNLOAD



BRAINABLE™

Several of the things we do as children have huge impacts on our health as adults.

Research strongly indicates that the earlier in life you start safeguarding your brain health, the stronger the protective effect will be. 40% of all cases of dementia can be avoided by engaging in healthy lifestyle choices, and the earlier in life you start the better.

That's why WBHI is bringing Brainable™ to schools - to educate students about brain health and to give them the best chance of keeping their memories intact and their brain functioning the way that they want.

Brainable™ teaches students in grades 5-8 about their brain and the importance of the choices they make to keep it healthy, from what they eat, to proper sleep, staying physically and socially active, ongoing learning, and keeping their stress in check. This knowledge, the 'Six Pillars of Brain Health', is augmented with the behaviours that increase risk for



poor brain health outcomes, such as substance abuse, concussion, excessive social media, and untreated mental illness.

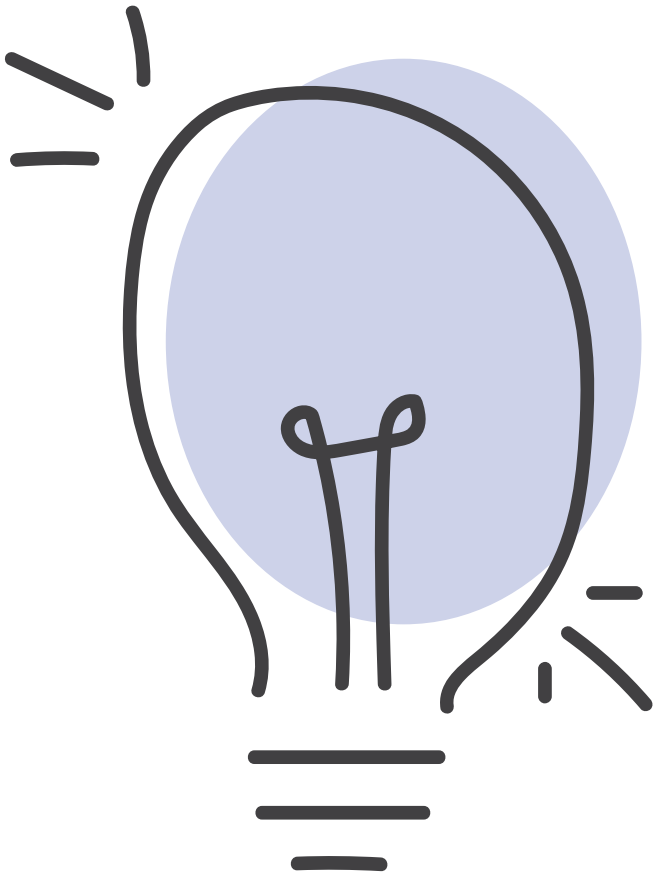
Taught in English and French by a board-certified and qualified educator, this unique and interactive 75-minute program supplements the current Ontario Ministry of Education middle school health and science curriculums.

After a trial in December, and with support from the Ontario Ministry of Education, Brainable™ will reach over 5,000 students by June 2022 free of charge, making it accessible to all schools and students who participate.

Every student who receives the presentation also receives a 72-page illustrated magazine loaded with great brain health information to take home and share with their family, a Parent Tip Guide for students to bring home that includes suggestions on how the family can all work together to live a brain-healthy lifestyle, and a Teacher Resource Guide with activities that reinforce brain health.

To find out more about bringing Brainable™ to your school, please visit brainable.ca.





BRAIN BUZZ®

A new initiative launched in 2020 under the moniker BRAIN BUZZ®, is a series of impactful short videos that give the public compelling evidence-based information on the best ways to protect their brain health. In 2021, an additional 20 Brain Buzz® videos were added to the collection.

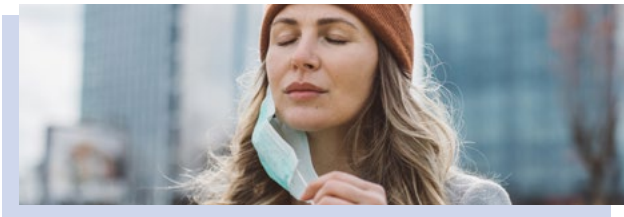
Topics for BRAIN BUZZ® include nutrition, exercise, mental stimulation, social engagement, sleep, stress reduction techniques, lifestyle choices that increase risk for cognitive decline, and unique risks for women, among others. BRAIN BUZZ® videos are hosted on our website, shared through our database and social channels, and show cased at our events. Check them out at brainbuzzvideos.org.

^This Buzz made possible thanks to The Citrine Foundation of Canada.

^This Buzz made possible thanks to RBC

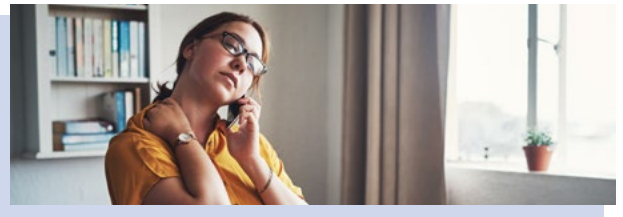
^ This Buzz made possible thanks to Home Instead

This Buzz made possible thanks to Crowe-Soberman



IN THE SAME BREATH[^]

Engaging in slow, deep breathing is a common tool for dealing with many physical and mental conditions. Deep breathing has minimal to no side effects, low to zero cost, and can be done in a short amount of time almost anywhere, making it practical and accessible.



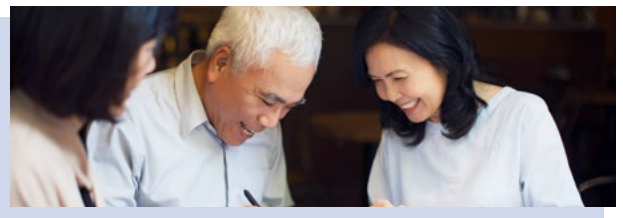
UNDER PRESSURE⁺

Chronic stress is linked to a wide range of health problems including heart disease, depression, anxiety, and dementia. These stress-related illnesses are more common in women, and the stress differs from men in several ways.



IS IT DEPRESSION OR DEMENTIA?*

The depression-dementia relationship is complex and similar symptoms can make it difficult to tell the difference between depression and dementia. Adding to the complexity is the reality that women and men differ when it comes to depression.



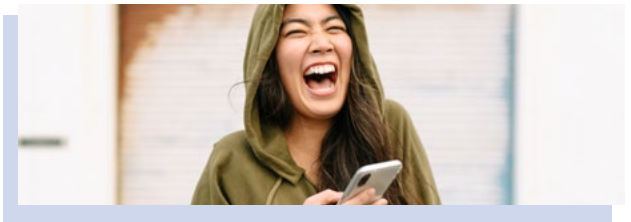
CONTROL & PEACE OF MIND⁺

What happens if you become sick and can't make decisions for yourself? Most of us have a will. But do you know about a Power of Attorney (POA)? In some ways it's more important than a will - it impacts you while you are still alive.



STAY SHARP*

For many people the first sign of aging is a “senior moment”— forgetting names or appointments, misplacing car keys, not knowing why they entered a room. But adult brains may be just as resilient and adaptable as the rest of their bodies, with proper training.



LAUGH OUT LOUD#

Don't feel like laughing these days? Having a positive attitude, sense of humor, being optimistic, easy going, extroverted, and being able to express your emotions rather than bottling them up can play a role in preserving neurons and creating new ones.



YOU'VE GOT TO HAVE FRIENDS^

Your brain also needs friends to lean on! Loving relationships and close friends keep your brain strong. Interacting with others in meaningful ways provides a buffer against the harmful effects of stress on your brain, and guards against depression and isolation.



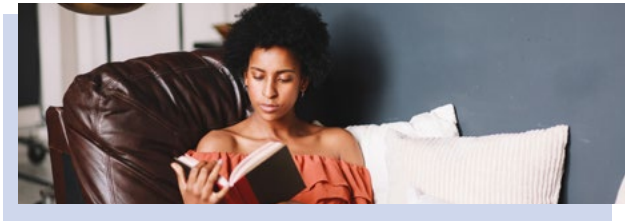
RAY OF HOPE

Vitamin D deficiency has also been linked with diseases related to mental health and brain function, including depression, schizophrenia, cognitive impairment, and dementia. Are you getting enough to protect your brain health?



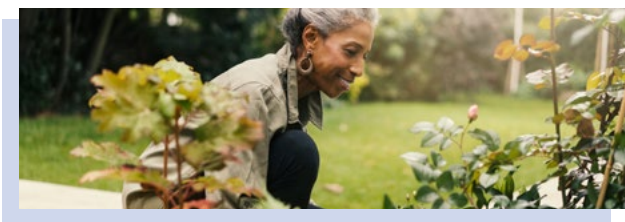
BEST BRAIN BOOSTS#

There is increasing evidence that dementia is not inevitable and exceptional health into old age is possible. Here are some of the best ways to help boost your brain health, provide a buffer against cognitive decline, and keep your brain functioning the way that you want.



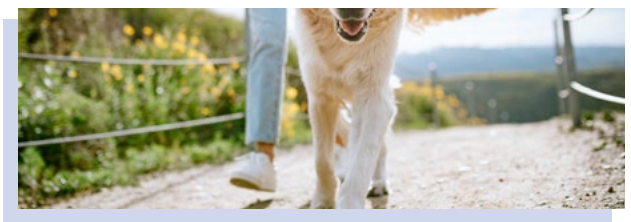
READ BETWEEN THE LINES

Reading not only keeps us informed about the world around us, but also provides intellectual stimulation and helps keep us mentally sharp. The more active you keep your brain, the longer you hold on to those traits of brain power you have at a younger age.



ON PURPOSE

Having purpose in your life can help preserve your brain. It doesn't matter what the purpose is - if you are doing something that provides you satisfaction and meaning - you are less likely to develop brain disorders like Alzheimer's and dementia.



EVERY STEP YOU TAKE

Walking is potent mood medicine that enhances your thinking, sharpens your memory, and safeguards brain health. It's one of the most simple and easiest forms of exercise - but the benefits are huge, including improved blood flow and better cognition.



WHY DO WE HIDE DEMENTIA?

Research shows that when it comes to medical concerns, the fear of developing Alzheimer’s disease exceeds the fear of every other type of health condition. Sadly, there is embarrassment around this disease but there is no shame or blame in Alzheimer’s!



ANIMAL ATTRACTION#

The therapeutic value of our relationship with our pets is increasingly being recognized by researchers. Pets calm us down, boost our immunity, improve our heart health, keep us moving, and enhance our social life, all important aspects of keeping our brains healthy.



TAKE 10

You can’t change your genes, but you can change your lifestyle. Recognizing that an active lifestyle can improve your brain health (even if it is for as little as ten minutes a day), with the real possibility of significantly lowering your risk of dementia over time.



WRITE IT DOWN

Need some mental clarity and want to improve your overall focus? Journaling helps clear your mind of clutter. Journaling is a great way to release emotions privately. It’s easier than a gym membership, cheaper than a therapist, and is portable.



EAT THE RAINBOW

Put your health first and eat a rainbow of foods to boost the antioxidant levels in your body to keep your body and brain healthy and young. Eating foods with different colours helps decrease inflammation, strengthen immunity and proper blood flow.



COME FLY WITH ME

To avoid the negative effects of chronic stress and burnout, we need time to replenish and return to our pre-stress level of functioning. Vacations provide the necessary downtime to help put your mind at rest and replenish your brain.



(DON'T) CHEW THE FAT

Healthy cholesterol (known as HDL) helps in improving memory and learning and assists in production of various hormones. But ‘bad’ cholesterol (or LDL) can block your arteries and increase your risk of stroke, impair your cognitive function, and lead to dementia.



SPICE UP YOUR LIFE

Spices and herbs can instantly change the flavour of the food you are eating. But they also have the incredible ability to change your brain as well. Certain spices won’t just add flavour to your food - they will also add brain benefits that are long lasting.

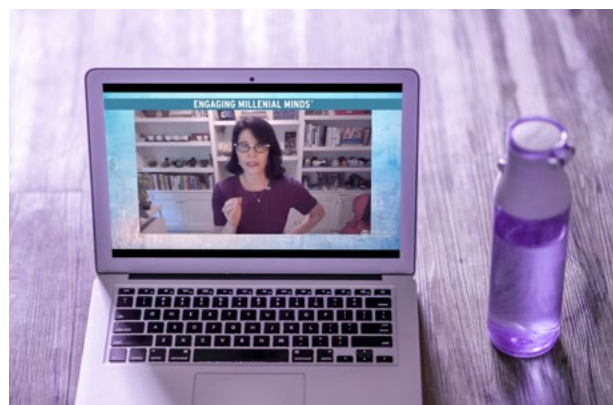
THE YOUNG PERSON'S CABINET & ENGAGING MILLENNIAL MINDS®

Women's Brain Health Initiative Young Person's Cabinet hopes to encourage millennials to start looking after their brain health now so that they don't succumb to some of the memory robbing illnesses that have begun plaguing the baby boom generation. We may not be able to do all good things for ourselves all the time, but when it comes to the brain, the more we can do, the earlier in life, the better.

Engaging Millennial Minds® (EMM) is an interactive comprehensive coordinated series of public events with a primary target audience of 20-40-year-olds who have indicated the importance of social interaction and informal networking as their preferred means to gain and share knowledge.

The goal of these events is to help prevent dementia by highlighting risk for cognitive decline and dementia while emphasizing the unique risks for women to an audience of millennial women and their allies.

With support from Presenting Sponsor RBC, and now in its fifth year, two virtual EMM events were produced in 2021.



LET'S GET PHYSICAL WITH DR. WENDY SUZUKI

Fitter young adults have fitter brains! Higher levels of physical fitness are associated with better brain structure and higher cognitive function, but even a little bit of exercise can keep your brain from shrinking. Exercise can also help improve your sleep and is a great mood booster. Participants experienced first-hand the immediate improvement even a short bout of exercise can make.

MINDFUL EATING WITH CELEBRITY CHEF ROGER MOOKING

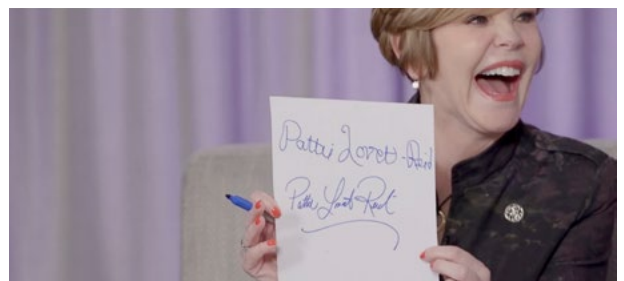
What you eat, how you feel, and how you ultimately behave are connected. Eating foods that contain lots of vitamins, minerals, and antioxidants nourishes your brain and protects it from oxidative stress which can damage cells. With recipes and ingredient lists sent out in advance, participants cooked alongside Chef Mooking in this well-attended and delicious interactive EMM event.





THE STAND AHEAD® CHALLENGE & WOMEN'S BRAIN HEALTH DAY

Thanks to our efforts, December 2nd was officially declared Women's Brain Health Day in 2019 by the Government of Canada as an opportunity to highlight the importance of brain health and the necessity of incorporating sex and gender considerations into research.



The third Women's Brain Health Day continued to be both memorable and inspiring. Hosted for the second year by CTV's Anne-Marie Mediwake and Pattie Lovett-Reid, the 2021 virtual event featured mind-bending magic with illusionist Steven Jones, along with special guests Joan Lunden, Lisa Raitt, Jann Arden, Robin Wright, Martha Stewart, and Marcia Gay Harden among others.

Two federal ministers spoke in support, with the Honourable Carolyn Bennett, Minister of Mental Health and Addictions and Associate Minister of Health, citing the joint funding provided by the Canadian Institutes for Health Research (CIHR) for the Wilfred and Joyce Posluns Chair in Women's Brain Health and Aging, held by Dr. Gillian Einstein at the University of Toronto.

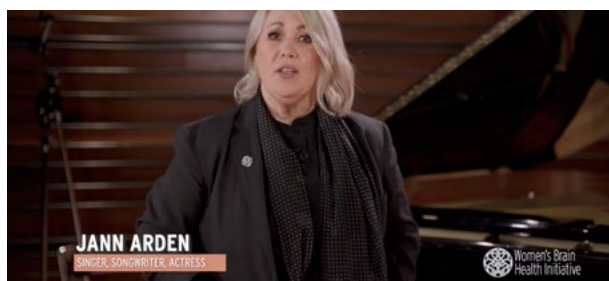
The Honourable Marci Ien, Minister for Women and Gender Equality and Youth, added: "On behalf of our government, thank you for every single thing that you have done and for your dedication for protecting women's brain health from coast to coast."

Toronto Mayor John Tory and Niagara Falls Mayor Jim Diodoti also delivered messages in support of the cause and lit up the City of Toronto sign in Nathan Phillips Square, the CN Tower, and Niagara Falls in WBHI's signature purple to mark the occasion.

Women's Brain Health Day also featured the third annual Stand Ahead® Challenge. This year's challenge was a straightforward but surprisingly difficult task devised by Lynn Samuel and fittingly dubbed 'The Other Hand Challenge'. Participants were asked to write their name and then attempt it with their less dominant hand, with most producing an illegible scrawl that bore no resemblance to their actual signature.

As always, at the heart of the initiative was fundraising to support research and educational programs that better support the needs of women. For the third year in a row, WBHI's valued partner Brain Canada generously matched donations for women's brain research up to \$250,000. And thanks to a generous matching gift from The Citrine Foundation of Canada, and to many extraordinarily charitable donors, WBHI successfully raised over \$800,000!

In its short history, the Stand Ahead® Challenge has raised over \$2 million and has already become a powerful tool for standing up against research bias and raising awareness to combat brain-aging diseases that disproportionately affect women.





MEMORY MORSELS®



Our brains are affected by what we eat. Research has shown that one of the best ways to keep our brain working the way we want is to eat right. Even as we age chronologically, we can keep our brain healthy by adding smart foods and eliminating harmful choices from our diet.

Memory Morsels® is a social media initiative dedicated to nutrition and brain health, including leading chefs (featured foodies), delicious recipes, superfoods, and tips (our morsels) about what to eat and why.

Each Featured Foodie and their delicious recipes are showcased in one of the Mind Over Matter® magazines. 2021 featured Celebrity Chef and restaurateur Mark McEwan in Volume 12, and cookbook author and food photographer Diala Canelo was showcased in Volume 13.



FROM HER LIPS TO OUR EARS® EDUTAINMENT EVENTS

A series of entertaining events with an educational aspect generously presented by CIBC, three exceptional From Her Lips to our Ears® virtual events took place in 2021.

In a society where youth is revered and aging is feared, Joan Lunden, award-winning journalist, bestselling author, and television host candidly shared her anxieties, breakthroughs, and how she copes with the realities of aging in her latest book "Why Did I Come into This Room?" Joined by moderator and television personality, fashion editor, and author Jeanne Beker, Joan highlighted the good, the bad, and the ugly, elevating the conversation on topics often considered "taboo."

Up until recently, the role that a healthy environment plays in safeguarding human health had been greatly neglected. With growing evidence of the link between the health of our environment and the health of our brain, CTV Your Morning co-host Anne-Marie Mediwake spoke with producer, author, and environmental advocate Laurie David and Indigo founder and CEO Heather Reisman about their latest book and concrete steps to take towards living more sustainably.



Whether she is captivating audiences with her heartfelt music, entertaining them with her quick wit or sharing her written word in a boldly honest voice 8-time Juno Award winning singer-songwriter and actress Jann Arden is a brilliant multi-dimensional talent. Jann shared her personal story of triumph and tragedy with CTV Your Morning co-host Anne-Marie Mediwake and thrilled viewers with a stunning musical performance.

Each event was recorded and can be viewed on our website.

WITH GRATITUDE

We are truly inspired by the resilience, fortitude, and creativity of the many dedicated friends, supporters, and team members of Women's Brain Health Initiative.



Brain Canada
Foundation



MARK LASH



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AMPLIFYING THE IMPACT OF YOUR DONATION

WBHI LEVERAGED UP ITS DONOR SUPPORT WITH MATCHING FUNDS BY PARTNERING ON SEVERAL OF ITS INITIATIVES INCLUDING;

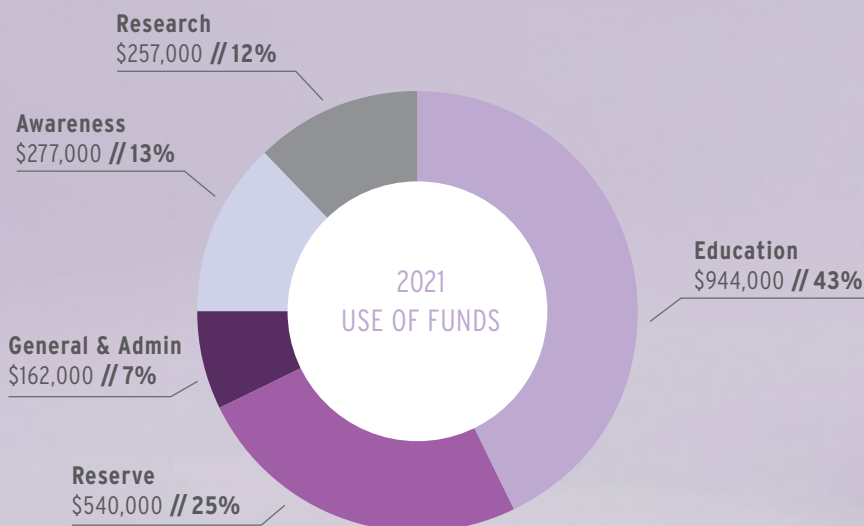
- » Mind Over Matter® with Brain Canada Foundation and Health Canada and The Citrine Foundation of Canada
- » Women's Brain Health and Aging Research Chair with CIHR, OBI, and The Alzheimer's Society of Canada
- » The Stand Ahead Challenge® with Brain Canada Foundation and Health Canada and The Citrine Foundation of Canada

YOUR DOLLARS AT WORK

WBHI raises funds for research and preventative health education initiatives through its knowledge-learning events, through sales of its exclusive Hope-Knot® product, through private donations, and funds received from corporations and foundations.

In 2021 Women's Brain Health Initiative raised just over \$2.2 million CDN. A very productive year, \$1.6 million (75%) was used for the activities, programs, and operations of the charity. \$540,000 (25%) was held for future activities.

Right now, more than ever, women's interests, needs and voices are powerful catalysts for achievement, consumerism, and great global influence. Women's Brain Health Initiative works with partners and donors that want to better meet the needs of women.



HELPING TO GIVE YOU A MEMORABLE FUTURE



Follow us for daily brain health tips
@womensbrains

WBHI.ORG // 1-888-927-2011

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