



Winter 2021 Issue

Winter greetings from our team members at Massachusetts Alzheimer's Disease Research Center and Center for Alzheimer Research and Treatment! We hope you and your loved ones are staying safe during the Coronavirus pandemic.

At the Mass General Brigham facilities, we are taking every precaution to protect our research participants, study partners, and staff. Some of our in-house research operations are open and seeing patients at reduced capacity, some have been put on hold and some continue with remote visits consisting of either phone calls and/or computerized testing done from home.

As always, our dedication to finding more effective treatments and a cure for Alzheimer's disease continues.

Study Updates: We have several observational studies and clinical trials open across the BWH and MGH campuses. Many of our studies are enrolling individuals with Mild Cognitive Impairment (MCI) and Alzheimer's disease (AD). To learn more about MCI and AD see our fact sheets below.



FACT SHEET

Alzheimer's Disease

What is Alzheimer's disease?

Alzheimer's is a brain disease that slowly affects memory, thinking and behavior. It is caused by the accumulation of plaques (beta amyloid) and tangles (tau protein) in the brain which lead to brain shrinkage.

What are the signs and symptoms of Alzheimer's?

Early signs of Alzheimer's disease can include missing appointments, getting lost in familiar places and forgetting recent conversations and events. Eventually the ability to multi-task becomes difficult, as does the ability to carry out daily activities such as paying bills or following a recipe.

What are the stages of Alzheimer's?

Preclinical Alzheimer's disease: The brain changes related to Alzheimer's disease can begin up to 20 years before a person notices any memory symptoms. Many people with preclinical Alzheimer's disease usually have a family history of the disease.

Mild Alzheimer's disease: In this stage it is clear to friends, family and medical staff that the person is having problems with memory and thinking. Issues may include difficulty with problem-solving, managing finances, personality changes and misplacing belongings.

Moderate Alzheimer's disease: During this stage confusion is worse and people typically need more help with self-care and daily activities such as cooking, cleaning and personal care. Issues may include losing track of the day/month/season, poor judgment, wandering and significant personality and/or behavior changes.

Late-Stage Alzheimer's disease: In this stage mental function continues to decline and there are typically problems with physical abilities. Problems typically include the inability to communicate clearly and the need for assistance with eating, dressing and toileting. The person may eventually be unable to sit or walk without assistance and may lose control over bladder and bowel functions.



FACT SHEET

Mild Cognitive Impairment

What is Mild Cognitive Impairment (MCI)?

Mild Cognitive Impairment (MCI) is a condition where a person has more memory and thinking problems than others their age, but they can still carry out many everyday activities without assistance.

What are the signs and symptoms of MCI?

People with mild cognitive impairment may be aware of a decline in memory or mental function. Their family members and close friends may also notice a change. Symptoms of MCI may include:

- Increased tendency to misplace things
- Forgetting to attend appointments and events
- Feeling overwhelmed by making decisions and following directions
- Beginning to have difficulty navigating in familiar places
- Showing an increase in poor judgement and impulsivity
- Having more trouble finding words than other people of the same age
- People with MCI may also experience new onset depression, anxiety, apathy, aggression or irritability

What are the risk factors of MCI?

- Age is the biggest risk factor for developing MCI
- Certain medical conditions can lead to MCI including, high blood pressure, high cholesterol, diabetes, stroke and heart problems

A person with MCI is at increased risk for developing Alzheimer's disease. However, MCI does not always lead to Alzheimer's disease or a related dementia.

Alzheimer Prevention Study: The AHEAD A3,4-5 study is comprised of two different trials testing the same investigational drug (known as BAN2401). Study participants are enrolled in one of two AHEAD trials based on whether they have intermediate or elevated levels of amyloid in their brain:

- Participants with intermediate amyloid levels take part in the AHEAD A-3 trial—***the first pre-preclinical Alzheimer's disease trial***
- Participants with elevated amyloid levels take part in the AHEAD A-4-5 trial

This study is looking for healthy adults ages 55-80 who may have an increased risk of memory loss associated with Alzheimer's disease but have not been diagnosed with Alzheimer's disease or another dementia. If you would like to hear more about this study contact Allyson Pulsoni, recruitment specialist, at apulsoni@bwh.harvard.edu

TRAILBLAZER 2 Study: This is a phase 2 clinical trial in which we will evaluate whether the drug Donanemab is safe and effective and may slow cognitive impairment and reduce amyloid plaque buildup in people with early-stage Alzheimer's disease. Individuals age 60-85, with MCI or mild AD dementia may be eligible. Financial compensation is provided for each visit and reimbursement for parking and travel. For more information, contact Allyson Pulsoni at apulsoni@bwh.harvard.edu

Bacillus Calmette-Guérin (BCG) Vaccine Study: BCG has been given to billions of people around the world for prevention of tuberculosis, it is used widely in the United States for treatment of bladder cancer, and its benefits are being explored for a number of other diseases. Early studies suggest that BCG may also have some benefit for diseases that affect the brain. Adults aged 55-80 who are cognitively unimpaired OR have trouble with memory and thinking may be eligible to participate in the BCG Vaccine Study. For more information, email: ACTRUStudies@mgh.harvard.edu

Research Participation at Home: The Alzheimer's Prevention Trials (APT) Webstudy engages people in their own homes, on their computers, and uses technology to identify those potentially at risk for Alzheimer's. Anyone aged 50 or over can participate in the APT Webstudy. www.aptwebstudy.org.

Love your Brain!: February 14th is Valentine's Day and you can celebrate and show your brain some love by doing a few mental exercises. Activities that challenge your mental skills can have a big impact on mental health. Here are a few websites with online puzzles: puzzles.usatoday.com, games.aarp.org, and merriam-webster.com/

Keep in Touch: For the latest research updates visit MADRC.org and BWHCART.org, and follow us on [Facebook](#), [Twitter](#) and [YouTube!](#) **If you have any questions or concerns, contact us:** (617) 278-0600 or BWHMADRCeducation@partners.org

