#### MEMORY LOSS IN AGING: WHAT'S NORMAL AND WHAT'S NOT

Mahakian J. L. (San Clemente, California, USA)
drjane@alzheiemerscarearmenia.org
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Alzheimer's Care Armenia (www.alzheimerscarearmenia.org) is a non-profit organization at the forefront of creating sustainable programs and services for people with memory loss and their families in Armenia. In this article, what is normal and not normal memory loss in aging will be discussed. People with age related memory loss have more generalized cognitive slowing and can live independently. Those with Mild Cognitive Impairment, which can progress to a dementia eventually, will need oversight and care. Providing education and information on memory loss and dementia to the community at large in Armenia is critical to raising awareness and visibility. Understanding what is normal and not normal memory loss has implications that could affect future screening, diagnosis and treatment.

Key words: memory loss, mild cognitive impairment, dementia, Alzheimer's disease.

Memory problems expected as part of normal aging. We all experience simple forgetfulness (did I pay the gas bill?") with a slowing in recalling people's names, dates, and events that can be part of aging. There are multiple memory processes, including learning new information, the ability to recall information, and recognizing familiar information. Each of these processes can change, leading to the experience of forgetfulness. There are also different types of memory, each of which can be affected differently by normal aging such as preserved memory functions. These functions include: remote memory (ability to remember important event from years ago); procedural memory (performing tasks such as turning on washing machine) and semantic recall (general knowledge, such as knowing soccer is a sport). A person's declining memory functions include: learning new information (learning a new language or card game) and recalling new information (may take longer to learn something new and to retrieve it)

## The cognitive changes associated with normal aging include:

- While verbal intelligence (vocabulary) remains unchanged with aging, the speed of information processing gradually slows (such as problem-solving skills).
- Executive functions (planning, abstract thinking) remain normal for everyday tasks, but are slowed when faced with new tasks or divided attention ("multi-tasking").
- A slowing of the speed of cognitive processing and reaction time (ringing the buzzer) occur with aging. Language is somewhat affected by normal aging.

Language is the "words, their pronunciation, and the ways they are used in combination to be understood."

- Language comprehension (understanding the rules of language) is typically not affected, as are vocabulary (semantic memory) and syntax (the way in which words are put together).
- Trouble remembering people names or places and finding words when talking are very common and verbal fluency (takes longer to "get the words out") can also be affected

Memory problems not considered a normal part of aging include: memory challenges that interfere with normal daily life and activities are not considered normal aging. Forgetting where you put your keys is a simple sign of forgetfulness, disorganization, or normal aging; however, forgetting what your keys are used for or what car they belong to is not a normal. Furthermore, the memory loss and cognitive problems seen in Mild Cognitive Impairment or dementia are not a normal part of aging. Not everyone diagnosed with mild cognitive impairment will develop a dementia. The following are some of the abnormal changes in memory that are seen in MCI and dementia:

- Person forgets recent events, repeats the same questions and tells the same stories, sometimes forgets the names of close friends and family members, frequently forgets doctor appointments or planned events, forgets conversations and may misplaces items frequently.
- Struggles with coming up with the right words. Has difficulty understanding written or verbal (spoken to) information.
- Often loses focus. The person is easily distracted. Needs to write reminders to do things or else will forget. Person may use numerous note pads to remember information.
- The individual can complete complex tasks such as paying bills, taking medications, shopping, cooking, household cleaning, driving, however, this takes more effort.
- Person often "covers up" and makes light of their impairment with jokes.
  - Person can function independently at this point

It is important to understand the memory challenges in people with dementia. The person may have many of the same symptoms of MCI plus dementia symptoms, including the following:

- The person is unable to perform complex daily tasks (paying bills, managing medications, grocery shopping, driving).
- Not aware of memory, may say they have no memory issues.
- Poor judgment (may give large amounts of money to stranger)
- Decline in rational thinking and ability to problem solve (may wear sweater on hot day).

 Person is not able to live independently. Memory, language, and cognition become so impaired that self-care tasks can no longer be performed without assistance from another person. Current Progress of Alzheimer's Care Armenia
 Programs/Services for People with Memory Loss in Armenia

Alzheimer's disease is underserved, overlooked and on the rise in Armenia. With this in mind, Alzheimer's Care Armenia was founded in 2017 by Dr. Jane Mahakian, Gerontologist to inspire hope, transform lives and enhance the quality of life for people with Alzheimer's disease and their families in Armenia.

Alzheimer's disease and other dementias are prevalent in Armenia, but there is a profound lack of knowledge as well as services and programs for those living with the disease and their families. Our mission is to develop sustainable programs, services and a memory and aging center for people with memory loss and their families.

This past October 2018, we had a historic Alzheimer's disease conference with over 400 health care professionals and caregivers at Yerevan State Medical University to discuss the current status and future of dementia care in Armenia. Silverado, a leading memory care company in the United States co-sponsored the conference. This was a groundbreaking event!

Alzheimer's disease Training Academy has been established and is offering a first ever Dementia Certification Program for health care professionals in Armenia. This 9 month program began in March 2019. Over 25 professionals have enrolled in the program and there is now a waiting list for the 2020 dementia training program. The training includes 21 hours of in-depth training in all facets of dementia.

The Healthy Aging Memory Club: The Healthy Aging Memory Club is a customized program that incorporates cognitively stimulating and purposeful activity classes for older adults with memory loss. The Club incorporates brain exercises and activities that target the major areas of cognition: memory, attention, language, executive function and visual-spatial skills. Research based cognitively stimulating exercises and purposeful activities can improve the cognitive functioning in people with memory loss. Studies have shown people who engage in cognitively stimulating activities early in the course of Alzheimer's disease have been associated with slower cognitive decline.

Cognitive exercises and purposeful activities are important factors in the treatment of older adults with memory loss. Many older adults residing at home or in old age Homes are isolated and lack stimulating cognitive activities. This lack of stimulation can lead to increase memory loss, increased isolation as well as depression. Participants in The Healthy Aging Memory Club receive stimulating classes that create new connections in the brain. The variety of fun activities stimulate the senses and brain functions. Purposeful activities enhance the cognitive exercise experience and helps strengthen learning.

The first Healthy Aging Memory Club began in March 2019 at Orran in Vanadzor. This ground breaking program was a partnership between Alzheimer's Care Armenia, Orran Benevolent NGO, Worchester Polytechnic Institute (WPI) in Boston MA, and

Homeland Development Initiative Foundation (HDIF). This Memory Club is well attended and is held every Wednesday afternoon.

In 2019, there will be an additional three Healthy Aging Memory Club's developed for people with mild cognitive impairment to attend. The Healthy Aging Memory Club will be developed for Mission Armenia in Yerevan; Nork Old Age Home and at Somnus Neurology Clinic.

Dementia Network. Created in Spring 2019. Perhaps these professionals would be interested in being part of a work group or sub group for our National Dementia Plan Work Group. This is a group of local professionals who are interested in dementia care.

Work Group formed for National Dementia Plan. In cooperation with the Ministry of Health, a Work Group has been formed. We are currently holding focus groups to gather more information.

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Մահակյան Ջ.Լ. (Սան Կլեմենտ, Կալիֆոռնիա, ԱՄՆ)

«Alzheimer's Care Armenia»-ն շահույթ չհետապնդող կազմակերպություն է, որի նպատակն է կայուն ծրագրերի և ծառայությունների ստեղծումը՝ հիշողության կորուստ ունեցող մարդկանց և նրանց ընտանիքների համար Հայաստանում։ Այս հոդվածում քննարկվում է այն, թե ինչն է համարվում նորմալ և ոչ նորմալ ծերության հետևանքով հիշողության խանգարումներում։ Տարիքային հիշողության կորուստ ունեցող մարդիկ ունեն ավելի ընդհանուր ճանաչողական դանդաղեցում և կարող են ինքնուրույն ապրել։ Այն մարդիկ, ովքեր ունեն ճանաչողական խանգարումներ, որոնք, ի վերջո, հանգեցնում են թուլացման, պահանջում են խնամք և վերահսկողություն։ Ընդհանուր առմամբ հայ հասարակությունում, իրազեկման բարձրացման նպատակով, հիշողության կորստի և թուլամտության վերաբերյալ կրթության և տեղեկատվության տրամադրումը շատ կարևոր է։ Հասկանալը, թե ինչն է նորմալ և ոչ նորմալ հիշողության կորուստի դեպքում, ունեն հետևանքներ և կարող են ազդել հետագա հետազոտությունների, ախտորոշման և բուժման վրա։

**Հանգուցային բառեր**՝ հիշողության կորուստ, մեղմ ճանաչողական խանգարում, դեմենցիա, Ալցհայմերի հիվանդություն։

### ПОТЕРЯ ПАМЯТИ В СТАРЕНИИ. ЧТО НОРМАЛЬНО, А ЧТО НЕТ

Магакян Дж. Л. (Сан-Клементе, Калифорния, США)

"Alzheimer's Care Armenia" является некоммерческой организацией, занимающейся созданием стабильных программ и услуг для людей с потерей памяти и их семей в Армении. В этой статье будет обсуждаться то, что является нормальной и не нормальной потерей памяти при старении. Люди с возрастной потерей памяти имеют более общее когнитивное замедление и могут жить независимо. Тем людям, у которых умеренные когнитивные нарушения, в конечном итоге приводящие к деменции, потребуется надзор и забота. Предоставление образования и информации о потере памяти и деменции для армянского общества в целом имеет решающее значение для повышения осведомлённости и обозрения. Понимание того, что является нормальной и не нормальной потерей памяти, имеет последствия, которые могут повлиять на будущие обследования, диагностику и лечение.

**Ключевые слова**: потеря памяти, лёгкие когнитивные нарушения, деменция, болезнь Альцгеймера.