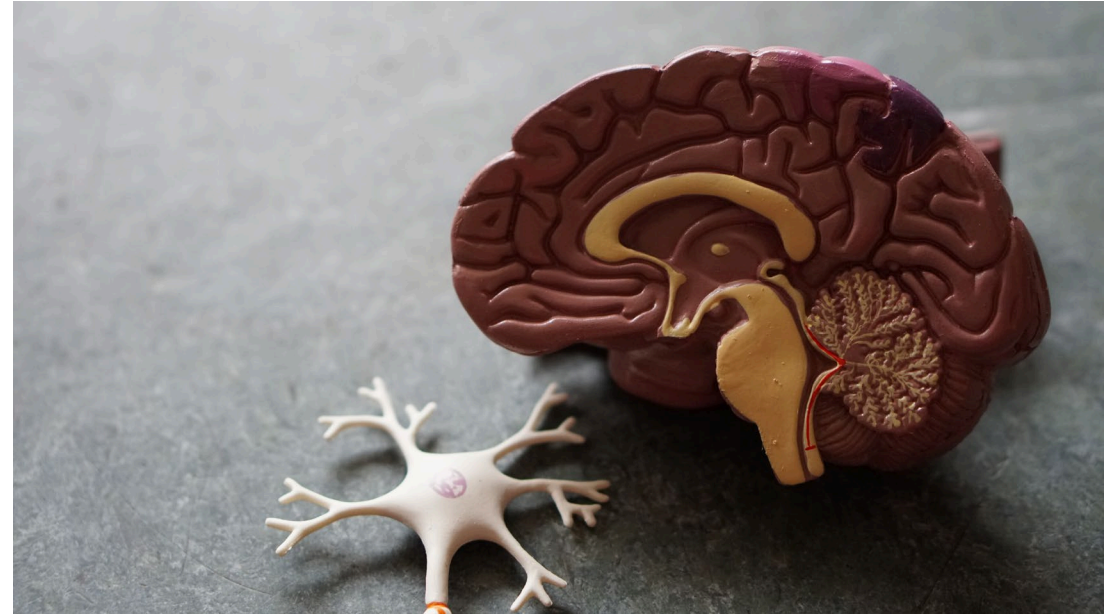




Alzheimer's Disease

What is Alzheimer's Disease?

- Alzheimer's disease is a progressive disorder that causes the deterioration of brain cells.
- As brain cells waste away and die, patients exhibit a continuous decline in thinking, behavioral, and social skills that disrupt their ability to function independently.
- Alzheimer's involves the part of the brain that is responsible for memory, thoughts, and language.
- The disease process often starts years before the first symptoms appear.



Alzheimer's Disease Statistics

- More than **55 million people** live with dementia worldwide, and there are nearly **10 million new cases** every year
- Dementia is currently the **7th leading cause of death** among all diseases and one of the major causes of disability and dependency among older people globally
- Alzheimer's disease is the most common form of dementia and may contribute to **60-70% of cases**
- In 2019, the estimated total global societal cost of dementia was **US\$ 1.3 trillion**, and these costs are expected to surpass **US\$ 2.8 trillion by 2030** as both the number of people living with dementia and care costs increase
- In 2019, informal caregivers (i.e., most commonly family members and friends) spent on average **5 hours per day** providing care for people living with dementia
- About **1 in 9 Americans** aged 65 and older has Alzheimer's dementia
- In the U.S. in 2019, more than 16 million family members and friends provided **18.6 billion hours of unpaid care** to people with Alzheimer's and other dementias, at an **economic value of \$244 billion**.
- Nearly **one-fourth** of Alzheimer's and dementia caregivers are "sandwich generation" caregivers—caring for both someone with the disease and a child or grandchild

Risk Factors for Developing Alzheimer's Disease

- **Age** - Alzheimer's disease is not a regular part of the aging process, but as age increases, so does the risk of developing the disease.
- **Family history and genetics** - If a first-degree relative—a parent or sibling—has Alzheimer's, you are somewhat more likely to develop the disease.
- **Down syndrome** - Many people with Down Syndrome develop Alzheimer's. The disease tends to surface 10-20 years earlier in people with Down syndrome than for the general population.
- **Sex** - While there seems to be little difference in the risk between men and women, more women have the disease, likely because they generally live longer than men.
- **Mild cognitive impairment** - This refers to a decline in memory or thinking skills that is more than what would normally be expected for a person's age. People with mild cognitive impairment are more likely to develop dementia and Alzheimer's disease.

Risk Factors for Developing Alzheimer's Disease

- **Past head trauma** - People who have suffered from significant head trauma have a greater risk of Alzheimer's.
- **Poor sleep patterns** - Research has linked poor sleep patterns, such as difficulty falling asleep or staying asleep, to an increased risk of Alzheimer's disease.
- **Lifestyle and heart health** - Just as sedentary lifestyle, obesity, smoking, high blood pressure, high cholesterol and poorly controlled type 2 diabetes are linked to heart disease, they are also linked to increased risk of Alzheimer's disease. All of these risk factors can be modified by making lifestyle changes.
- **Lifelong learning and social engagement** - Long-term involvement in mentally and socially stimulating activities is linked to a lower risk of developing Alzheimer's disease. Low education levels seem to be a risk for developing the disease.

10 Early Signs & Symptoms of Alzheimer's Disease

1. Memory loss that disrupts daily life
2. Challenges in planning or solving problems
3. Difficulty completing familiar tasks
4. Confusion with time or place
5. Trouble understanding visual images and spatial relationships
6. New problems with words in speaking or writing
7. Misplacing things and losing the ability to retrace steps
8. Decreased or poor judgment
9. Withdrawal from work or social activities
10. Changes in mood and personality



https://www.alz.org/alzheimers-dementia/10_signs

Causes of Alzheimer's Disease

- Alzheimer's disease is believed to be caused, for most people, by a combination of genetic, lifestyle, and environmental factors that influence the brain over time.
- Only about 1% of patients with Alzheimer's have a specific genetic change linked to the disease.
- It is believed that the underlying cause of the disease is attributed to problems with proteins in the brain that are dysfunctional and thus disrupt the work of brain cells (neurons) and trigger a series of toxic events in the brain.
- As neurons are damaged and lose connection to one another, the brain cells eventually die. As brain cells die, over time, the brain begins to shrink.

Stages of Alzheimer's Disease

- **Mild (early stage):** During this stage of the disease, people can typically function independently but may begin to experience episodes of memory loss, which may include forgetting familiar words or location of everyday objects. Family and friends often start to recognize difficulties. Some difficulties may include trouble performing tasks in social or work environments, remembering names when introducing others in social situations, and forgetting things you just read.
- **Moderate (middle stage):** This stage is typically the longest stage and may last for many years. As damage to nerve cells in the brain progresses it becomes more difficult to express thoughts clearly and to perform everyday tasks. During this stage people begin forgetting events and personal history. Increased confusion about the current date and location is common and there is an increased risk of disorientation and loss. Personality changes also become increasingly evident and often include suspicion or repetitive behavior.
- **Severe (final stage):** In the final stage of disease, people lose the ability to respond to their surroundings, carry on conversations, and eventually control movements. As Alzheimer's progresses, people will need assistance at all times with daily activities and personal care. Patients continue to lose track of recent experiences and will have an increasingly difficult time communicating.

How is Alzheimer's Disease Diagnosed?

- Self-reporting of symptoms and information provided by close family members is one key component of Alzheimer's diagnosis
- Physical and neurological exam
 - Reflexes
 - Muscle tone and strength
 - Ability to get up from a chair and walk across the room
 - Sense of sight and hearing
 - Coordination
 - Balance
- Lab tests to rule out other potential causes of memory loss and confusion
- Mental status and neuropsychological testing
- Brain imaging can help rule out other conditions related to memory loss such as stroke, brain trauma, or tumors



What Is the Treatment for Alzheimer's Disease?

There's no cure for Alzheimer's, but there are treatments that may change disease progression and help treat symptoms. The following drugs are currently used for treatment of cognitive symptoms.

- **Cholinesterase inhibitors.** These medications work by preserving a chemical “messenger” in the brain that is depleted by Alzheimer's disease. This results in a modest boosting of cell-to-cell communication within the brain. Examples of cholinesterase inhibitors include donepezil (Aricept), galantamine (Razadyne), and rivastigmine (Exelon).
- **Memantine (Namenda).** This drug works to slow the progression of symptoms with moderate to severe Alzheimer's disease by working in another brain cell communication network. It is sometimes used in combination with cholinesterase inhibitors.
- **Antidepressants** are sometimes prescribed to help with behavioral symptoms related to Alzheimer's.

Create a Safe and Supportive Environment

- Keep valuables such as mobile phones, keys, and wallets in the same place at home so they don't get lost
- Ensure medications are kept in a secure location and use a daily checklist to keep track of correct dosages
- Arrange for use of automatic payments/deposits to help with finances and bill pay
- Provide a mobile phone with location capability so that caregivers can track location; program important phone numbers into the phone
- Schedule regular appointments on the same day and at the same time when possible
- Track daily activities/schedules using a whiteboard or calendar
- Remove excess furniture and clutter that could increase the risk of falls
- Install handrails on stairways and in bathrooms
- Provide shoes that are comfortable and provide good traction, limiting the risk of falls
- Make sure the person with Alzheimer's always carries identification and/or wears a medical alert bracelet
- Keep pictures and meaningful objects around the house

Other Considerations



- **Regular exercise** can help improve mood and maintain joints, muscle health, and heart health.
- **Social activities** are important for the overall well-being of Alzheimer's patients and can help to support the skills and abilities that are still preserved as the disease progresses.
 - Listening to music and dancing
 - Reading or listening to books
 - Gardening or crafts
 - Planned activities with children
 - Social events at senior or memory care centers

Other Considerations

- **Nutrition** can become problematic in patients with Alzheimer's disease as they may forget to eat, lose interest in meal preparation, or not eat healthy foods. They may also forget to drink adequate amounts of water, which can lead to dehydration and constipation.
 - **Provide healthy options** that the person with Alzheimer's disease likes and can eat.
 - **Ensure adequate intake of water and other healthy beverages.** Avoid caffeine as it can increase restlessness and interfere with sleep.
 - **High-calorie, healthy shakes and smoothies** can be a good supplement especially when eating becomes more of a challenge.



Care For The Caregiver

Caring for loved ones with Alzheimer's disease can be physically and emotionally challenging and can take a toll on the caregiver's overall health. It is important to be mindful and attentive to your own needs and well-being. It is common to experience anger, guilt, discouragement, worry, sadness, and even social isolation.

The following are some ways you can help to take care of yourself:

- Learn as much about the disease as possible
- Ask questions of the doctors and others involved in the care of your loved one
- Call on friends and family for help when needed
- Take a break
- Spend time with friends
- See your own doctor on schedule, eat healthy, and exercise regularly
- Join a support group
- Make use of a local adult day center if possible
- Talk to a counselor



References:

- https://act.alz.org/site/DocServer/caregivers_fact_sheet.pdf?docID=3022
- <https://www.alzheimers.net/resources/alzheimers-statistics/>
- <https://www.alz.org/alzheimers-dementia>
- <https://www.cdc.gov/aging/aginginfo/alzheimers>
- <https://www.mayoclinic.org/diseases-conditions/alzheimers-disease>
- https://www.who.int/health-topics/dementia#tab=tab_1

Additional Resources (Printable):

- <https://www.alz.org/help-support/resources/publications>

Total health



Emotional



Financial



Physical



Purpose



Social