

Understanding Alzheimer's

Education for
you and those
you love

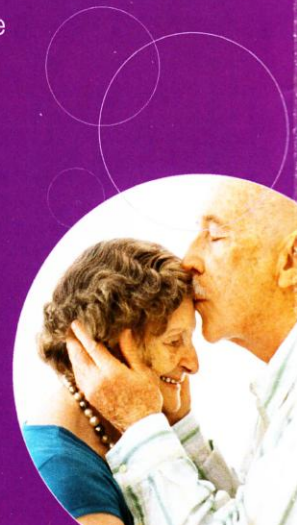


What is Alzheimer's disease?

Alzheimer's disease is a brain disorder affecting over 5 million individuals in the US, most of them elderly. Patients with Alzheimer's gradually lose their capacity for memory, reasoning, judgment, and language, and forget how to perform once-familiar activities. This loss of mental abilities is called dementia. Alzheimer's disease is one of the most common causes of dementia.

What are the symptoms of Alzheimer's disease and how does Alzheimer's affect patients and their families?

- Patients with Alzheimer's disease begin to misplace things, forget names, get lost even in previously familiar surroundings, have difficulty remembering recent events, have trouble concentrating, get irritable, agitated, paranoid, and may experience hallucinations.
- They have difficulty learning and retaining new information, while long-term memory may be preserved until the later stages of the disease.
- Ultimately they become dependent and need assistance for their activities of daily living.
- Since there can be fear or embarrassment associated with Alzheimer's disease, often patients and families are hesitant to accept the diagnosis and to seek help.
- Caregiver stress can be high and depression is common among both caregivers and patients.



What exactly goes wrong in Alzheimer's disease?

The brain is made up of millions of cells that are constantly sending chemical signals to each other. It is this chemical signaling system that allows the brain to store memories and perform other important mental functions. In Alzheimer's disease, cells in critical regions of the brain lose their ability to send chemical signals, and eventually die altogether.

Although the exact cause of this disorder remains unknown, researchers have learned a great deal about how brain cells sicken and die in the disorder. A key problem in Alzheimer's disease is thought to be the abnormal production and processing of certain proteins that are made by brain cells. Normally, brain cells manufacture proteins that are used by the cells and are then broken down and recycled. However, in Alzheimer's disease, due to a combination of age and other factors, this system begins to fail, and abnormal proteins start to accumulate. Like a "pileup" on a highway, this interferes with brain cells' normal functions, including their ability to send chemical signals, and eventually the brain cells shut down and die. This weakening and loss of chemical signals underlies the loss of memory and other mental functions that is characteristic of Alzheimer's disease.

Can Alzheimer's disease be treated?

Although there is no cure for Alzheimer's disease, therapies are currently available that can strengthen chemical signals from surviving cells or block the abnormal signals that occur when brain cells start to fail. However, these treatments only help make Alzheimer's disease symptoms less severe – they do not restore normal chemical signaling in the brain or prevent the disease from getting worse.

