

Understanding Alzheimer's Disease



**Alzheimer's
Disease
Research**

Alzheimer's disease affects people's memories, but it involves far more than simple forgetfulness. It is a progressive, degenerative, and incurable brain disorder that ends in death. We still don't know why some people get this devastating disease. Alzheimer's is the seventh leading cause of death in the United States. Nearly 7 million Americans older than 65 have this brain disorder.

Stages of Alzheimer's Disease

Alzheimer's disease usually progresses gradually, lasting from two to 20 years, with an average duration of seven years. Alzheimer's is difficult to diagnose, and it doesn't affect everyone the same way. If you suspect that you or someone you know may have symptoms of the disease, the first step is to see a doctor for a thorough medical exam. The stages below represent the general course the disease follows.

Preclinical Alzheimer's/Cognitively Unimpaired

Brain changes connected to Alzheimer's exist long before symptoms are evident. Currently, this phase is only defined in research settings, not as a clinical diagnosis.

Mild Cognitive Impairment Due to Alzheimer's

Individuals with mild cognitive impairment (MCI) have persistent memory problems (e.g., difficulty remembering names and following conversations), but they can perform routine activities without requiring more-than-usual assistance. MCI often leads to Alzheimer's. However, while all those who progress to some form of dementia go through a period of MCI, not all people exhibiting MCI will develop Alzheimer's disease. An official clinical diagnosis of MCI can be given by a specialist.

Dementia Due to Alzheimer's

Mild (Stage 1)

Early in the illness, people with Alzheimer's tend to exhibit minor memory loss and mood swings and are slow to learn and react. They start to shy away from anything new and prefer the familiar. They can still perform basic tasks but may need assistance with more complicated activities. Speech and understanding slow down, and people often lose their train of thought. They may get lost while traveling or forget to pay bills. As they become aware of this loss of control, they may feel depressed, fearful, irritable, and restless.

Moderate (Stage 2)

Eventually, people with Alzheimer's become disabled. Though the distant past may be recalled, recent events are difficult to remember. Progressing Alzheimer's affects the ability to comprehend location, day, and time. Caregivers must give clear instructions and repeat them often. As people with Alzheimer's continue to deteriorate, they may invent words and not recognize formerly familiar faces.

Severe (Stage 3)

During the final stage, people with Alzheimer's become less and less responsive. Memory becomes so poor that no one is recognizable, and loss of bowel and bladder control can lead to the need for constant care. They not only lose the ability to chew and swallow but also become vulnerable to pneumonia, infection, and other illnesses. Respiratory problems worsen, particularly when bedridden. This stage ultimately leads to coma and death.

The Mystery of Alzheimer's

We still do not know why Alzheimer's disease affects some people and not others. Researchers worldwide are searching for its causes, as well as ways to prevent, diagnose, treat, and cure it. Alzheimer's likely involves multiple disease factors, including the buildup of two proteins, amyloid-beta and tau, in different brain areas at different times.

Treatment

Physicians are not yet able to stop the progression of Alzheimer's disease or reverse its damage to the brain. Caregivers can only strive to make the affected person's last months or years more calm and pleasant. The current practice involves treating some of the symptoms of dementia, which may include depression, wandering, sleeping problems, and hallucinations, with pharmaceutical drugs that regulate chemicals in the brain (e.g., Aricept, Donepezil, Memantine). Newly identified and approved treatments that target amyloid may help slow cognitive decline but will not cure the disease.

For more details, download our Alzheimer's treatments fact sheet at brightfocus.org/AlzTreatments.

Hereditary Factors

There are three main types of Alzheimer's disease—early-onset, late-onset, and familial—and each manifests differently in the brain and behaviorally:

- **Early-onset** cases occur before age 65 and make up 5–6% of all cases. They often have a genetic risk component and sometimes do not involve memory loss. This type is more prevalent in men and is often misdiagnosed.



- **Late-onset Alzheimer's** has no known cause, but a variety of risk factors (e.g., whether someone carries the *APOE* gene) can contribute to disease prevalence, age at onset, and severity.
- **Familial Alzheimer's** is genetically linked to known mutations in three genes and accounts for around 1% of all cases.

More Than Aging

Alzheimer's should not be confused with the normal process of aging. While some of the early symptoms (e.g., forgetfulness) correspond with old age, the memory loss caused by Alzheimer's is far more severe and progressive. An important way to distinguish Alzheimer's from normal aging is if impairments interfere with someone's ability to live safely and independently.

A Degenerative Disease of the Brain

Alzheimer's disease, though not a mental disorder, can produce psychiatric symptoms in the affected person. These occur because of brain degeneration that leads to a significant loss of intellectual abilities and personality changes. People with psychiatric symptoms

likely have Alzheimer's in parts of the brain that control emotions, regulate impulses, and mediate social interactions.

Caring for Someone with Alzheimer's

Approximately 70% of people with Alzheimer's and other dementias are cared for at home, which may help them adjust to the loss of mental and physical abilities. It is important for caregivers to familiarize themselves with Alzheimer's and understand what they will encounter emotionally and financially when supporting someone with the disease.

Community resources—support groups, adult day care, respite (short-term) care services, and assisted living—can be a great source of help. Not all families have the resources to properly care for their loved one at home. Some must call on outside care when the disease reaches the final stages. Nursing home care facilities may be alternatives, although they can be quite expensive. For this reason, families and caregivers should consider long-term care insurance in their financial planning. They should also visit facilities to determine the quality of care and their ability to meet the special needs of loved ones with Alzheimer's. Caring for someone with Alzheimer's is

demanding, both physically and emotionally. As the disease progresses, people require 24/7 care. Arranging for respite care allows primary caregivers time for themselves, which is essential for emotional and physical well-being. More suggestions on how to cope are offered in the free brochure, *Managing Stress: Care for the Caregiver*, available at brightfocus.org/CareForCaregivers.

Getting Help

If your loved one has Alzheimer's disease, the first step is to talk to the diagnosing physician. They can direct you to community support groups, social services, long-term and respite care, and other resources.

Alzheimer's Disease Research, a BrightFocus Foundation program, offers a variety of free resources for those affected by Alzheimer's. Read and download information at brightfocus.org/ADR and order free publications by calling 1-855-345-6237. Your state's Area Agency on Aging is another excellent resource that can give you specific information on services in your area and connect you with a local affiliate, if one exists in your community. Look up your nearest office by searching online by state and locality.



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Foundation**

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22512 Gateway Center
Drive Clarksburg, MD 20871
1-855-345-6637
www.brightfocus.org

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