
About Alzheimer's disease

Alzheimer's disease is not a normal part of aging — it is a progressive brain disease that causes problems with memory, thinking and behavior. Alzheimer's is the most common cause of dementia, a general term for memory loss and other cognitive abilities serious enough to interfere with daily life. Although there is currently no cure for Alzheimer's, new treatments are on the horizon as a result of accelerating insight into the biology of the disease.

Risk factors

Experts believe that Alzheimer's develops as a complex result of multiple factors rather than any one overriding cause. The only exception to this is inheriting one of three rare genes that directly cause the disease. These genes account for about 1% of all cases. The other 99% of Alzheimer's cases are believed to be caused by a wide range of risk factors. These include, but are not limited to, advanced age, family history of Alzheimer's and lifestyle factors such as diet, exercise and smoking.

Symptoms

The symptoms of Alzheimer's disease are more than simple lapses in memory or age-related changes. People living with Alzheimer's disease experience memory loss as well as difficulties communicating, learning, thinking and reasoning. These are problems severe enough to interfere with an individual's work, social activities and family life.

As the disease progresses, individuals may also experience changes in personality and behavior, such as anxiety, suspicion or agitation, as well as delusions or hallucinations.

In collaboration with experts in the field, the Alzheimer's Association® created a list of warning signs to help people identify symptoms that may be related to Alzheimer's or another form of dementia. ([alz.org/10signs](https://www.alz.org/10signs)). It is possible for individuals to experience one or more of these signs in varying degrees. It is not necessary to experience every sign in order to raise concern.

Have a conversation

If you're concerned that you or someone you know is displaying any of these signs, take action. It can be helpful to confide in a friend or family member. For tips on how to have a conversation, visit [alz.org/memoryconcerns](https://www.alz.org/memoryconcerns).

Diagnosis

Multiple conditions can cause cognitive changes, so it's essential to obtain a full medical evaluation to determine whether symptoms are related to Alzheimer's or something else. If the cause is not Alzheimer's or another dementia, it could be a treatable condition. If it is dementia, there are many benefits to receiving an early and accurate diagnosis, including an opportunity to plan for the future, access support services and explore medication that may address some symptoms for a time.

There is no single diagnostic test that can determine if a person has Alzheimer's disease. However, diagnostic tools and criteria make it possible for physicians to make a diagnosis of Alzheimer's with an accuracy of about 90%. The diagnostic process may involve a thorough medical history, mental status and mood testing, a physical and neurological exam, and tests (such as blood tests and brain imaging) to rule out other causes of dementia-like symptoms. This process may take more than one day or visit. To learn more about the diagnostic process, visit alz.org/evaluatememory.

FDA-approved treatments

The U.S. Food and Drug Administration (FDA) has approved five drugs to treat cognitive symptoms of Alzheimer's disease. Four of these are in a class of drugs called **cholinesterase inhibitors**, which are prescribed to treat symptoms related to memory, thinking, language, judgment and other thought processes:

- Donepezil (Aricept®) is approved to treat all stages of Alzheimer's.
- Rivastigmine (Exelon®) is approved to treat mild-to-moderate Alzheimer's.
- Galantamine (Razadyne®) is approved to treat mild-to-moderate Alzheimer's.

The fourth drug is an **NDMA** (*N-methyl-D-aspartate*) **receptor antagonist**. It is prescribed to improve memory, attention, reason, language and the ability to perform simple tasks. It can be used alone or with cholinesterase inhibitors.

- Memantine (Namenda®) is approved for the treatment of moderate-to-severe Alzheimer's disease.

The fifth drug is a combination of a cholinesterase inhibitor and an NDMA receptor antagonist.

- Memantine+donepezil (Namzaric®) is approved for the treatment of moderate-to-severe Alzheimer's disease.

Progression

Alzheimer's disease typically progresses slowly in three general stages: early, middle and late (sometimes referred to as mild, moderate and severe in a medical context). Since Alzheimer's affects people in different ways, each person may experience symptoms — or progress through the stages — differently. On average, people age 65 and older live four to eight years after diagnosis, while some live with the disease for as long as 20 years. Outside of coexisting health problems such as heart disease or diabetes that can shorten life span, researchers do not know why some people live longer than others.

The thinking, memory, behavioral and functional problems associated with Alzheimer's reflect the areas of the brain affected by the disease. Areas involved with learning and memory are usually affected first. Later, regions involved in planning and carrying out tasks are affected. Ultimately, the brain regions involved in carrying out basic bodily activities such as walking and swallowing are impaired.

In general, those diagnosed when problems with thinking and memory are still quite mild are likely to live with the disease for many years. Those diagnosed when problems are more pronounced, such as when the individual struggles to remember where they are or to dress correctly for the season, are likely to live with the disease for fewer years. Those diagnosed when problems are severe, such as needing help with dressing and eating, generally live for the shortest period. Eventually, the person with Alzheimer's will need round-the-clock care. The disease is ultimately fatal.

Current Alzheimer's statistics

- More than 5 million Americans are living with Alzheimer's disease.
- Alzheimer's is the sixth-leading cause of death in the United States.
- Every 65 seconds, someone in the United States develops Alzheimer's.
- One-third of people age 85 or older are living with Alzheimer's or another dementia.
- Approximately 200,000 Americans under age 65 are living with younger-onset Alzheimer's disease.

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