

Clinical Perspectives of Alzheimer's Disease

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Alzheimer's disease (AD), also referred to simply as Alzheimer's, is a neurodegenerative disease that usually starts slowly and progressively worsens. It is the cause of 60–70% of cases of dementia. The most common early symptom is difficulty in remembering recent events. As the disease advances, symptoms can include problems with language, disorientation (including easily getting lost), mood swings, loss of motivation, self-neglect, and behavioral issues. As a person's condition declines, they often withdraw from family and society. Gradually, bodily functions are lost, ultimately leading to death. Although the speed of progression can vary, the typical life expectancy following diagnosis is three to nine years. The cause of Alzheimer's disease is poorly understood. There are many environmental and genetic risk factors associated with its development. The strongest genetic risk factor is from an allele of APOE. Other risk factors include a history of head injury, clinical depression, and high blood pressure. The disease process is largely associated with amyloid plaques, neurofibrillary tangles, and loss of neuronal connections in the brain. A probable diagnosis is based on the history of the illness and cognitive testing with medical imaging and blood tests to rule out other possible causes. Initial symptoms are often mistaken for normal aging. Examination of brain tissue is needed for a definite diagnosis, but this can only take place after death. Good nutrition, physical activity, and engaging socially are known to be of benefit generally in aging, and these may help in reducing the risk of cognitive decline and Alzheimer's; in 2019 clinical trials were underway to look at these possibilities. There are no medications or supplements that have been shown to decrease risk. No treatments stop or reverse its progression, though some may temporarily improve symptoms. Affected people increasingly rely on others for assistance, often placing a burden on the caregiver. The pressures can include social, psychological, physical, and economic elements. Exercise programs may be beneficial with respect to activities of daily living and can potentially improve outcomes. Behavioral problems or psychosis due to dementia are often treated with antipsychotics, but this is not usually recommended, as there is little benefit and an increased risk of early death. The course of Alzheimer's is generally described in three stages, with a progressive pattern of cognitive and functional impairment.

The three stages are described as early or mild, middle or moderate, and late or severe. The disease is known to target the hippocampus which is associated with memory, and this is responsible for the first symptoms of memory impairment. Dementia manifests as a set of related symptoms, which usually surface when the brain is damaged by injury or disease. The symptoms involve progressive impairments to memory, thinking, and behavior, which negatively impact a person's ability to function and carry out everyday activities. Aside from memory impairment and a disruption in thought patterns, the most common symptoms include emotional problems, difficulties with language, and decreased motivation. Dementia is not a disorder of consciousness, and consciousness is not usually affected. Dementia has a significant effect on the individual, relationships, and caregivers.