

Delirium vs Dementia in Older Adults: Types, Symptoms, and Diagnosis

Our easy-to-read fact sheets provide clinicians with reliable information to share with patients and their caregivers.

Alzheimer disease (AD), the most common type of dementia, is primarily characterized by worsening memory loss. Although many people experience mild memory problems with age, significant memory loss due to AD is not a normal symptom of aging. AD is usually diagnosed in adults aged 65 and older and is classified into 3 increasingly aggressive stages of disease: early-stage (mild), middle-stage (moderate), and late-stage (severe).¹

Memory loss, the hallmark of AD, is believed to be caused by the damage and destruction of nerve cells in the brain, which is triggered by the accumulation of beta-amyloid protein fragments (plaque) and tau tangles inside and between nerve cells. The build-up of plaque and tau tangles is a normal function of age; however, an abnormally large quantity is observed in people with AD.²

Stages and Severity of Symptoms in AD

AD symptom severity varies depending on the stage of the disease.¹

Early-stage/mild AD

Mild memory lapses occur, but most people can still function normally. They may frequently misplace items, or have trouble remembering new names, planning, or organizing.¹

Middle-stage/moderate AD

Dementia symptoms are more prevalent and may include speech difficulties, bladder control issues, mood fluctuations, and feelings of frustration, anger, or withdrawal. An individual with middle-stage AD will also have trouble performing everyday tasks and often requires a greater level of care. This is also the stage at which individuals are at greater risk of wandering and/or getting lost.¹

Late-stage/severe AD

Patients with late-stage AD exhibit drastic worsening in awareness, memory, movement, and communication. Personality changes are also characteristic of this stage of disease. People with late-stage AD require 24-hour care, requiring help with activities such as bathing, shaving, and eating.¹

AD vs Delirium and Dementia

Delirium is an acute illness that is triggered by another condition, such as acute trauma or surgery. Delirium severity can fluctuate throughout the day and is a

rapidly developing condition; however, it is not permanent. In contrast, AD progresses much more slowly than delirium and only worsens with time. Although there is no cure for AD, symptoms can be managed. A patient with AD can develop delirium, which often leads to rapid cognitive decline.³

Several disease states are characterized by signs and symptoms that overlap with those of AD, which may lead to confusion or misdiagnosis. The following conditions can present similarly to AD and pose difficulties in its accurate diagnosis.

Delirium

Delirium is caused by disruption in the functioning of an individual's central nervous system (CNS) due to an underlying medical condition. Some common underlying conditions include substance withdrawal, medication side effects, or infection. Delirium develops rapidly, and its severity can morph over the course of the day. It commonly develops in the elderly who may experience decreased awareness, inability to focus, and potential changes in consciousness.⁴

Delirium is defined by acute changes in mental status, an inability to maintain attention or conversation, and memory problems or changes in alertness.

The 3 main types of delirium include:⁵

- **Hyperactive delirium:** characterized by agitation, hallucination, aggression, and uncooperative behavior;
- **Hypoactive delirium:** characterized by increased sleepiness, decreased alertness, and a higher mortality risk; it is often misinterpreted as tiredness; and,
- **Mixed presentation:** characterized by cycling hyperactive and hypoactive delirium.

Dementia

Dementia is a terminal illness primarily diagnosed in adults aged 65 and older. Although there are many different types of dementia, rapidly decreasing cognition is a hallmark symptom of every type. Dementia is considered an acquired syndrome as opposed to a specific disease, such that a variety of other diseases can contribute to its manifestation. Common risk factors for dementia include genetics, older age, and systemic vascular disease. Some of the most commonly diagnosed dementias include Lewy body dementia, vascular dementia, mixed dementia, and frontotemporal dementia.⁶

Lewy body dementia

Lewy body dementia, which comprises Parkinson disease dementia and dementia with Lewy bodies, is characterized by a build-up of alpha-synuclein, a protein found

in neurons.⁷ In Parkinson disease dementia, dementia symptoms develop after the diagnosis of parkinsonism. In contrast, dementia with Lewy bodies manifests before a parkinsonism diagnosis, which is not always ultimately diagnosed.⁸

Vascular dementia

Vascular dementia occurs when blood vessels in the brain are impaired and cannot supply enough oxygen and nutrients to the brain, which can happen due to cardiovascular diseases such as aneurysm or heart attack. Feelings of depression and anxiety also occur more often in those with vascular dementia vs AD.⁹

Mixed dementia

Mixed dementia comprises both AD and cerebrovascular disease.¹⁰ In some people, the presence of both AD and cerebrovascular disease can lead to increased symptom severity during the initial stages of AD; however, in others, the 2 conditions may appear more independent. People with mixed dementia often exhibit abnormal walking, depressive mood, and memory problems.¹¹

Frontotemporal dementia

Frontotemporal dementia is commonly diagnosed in people aged 64 and younger and encompasses 3 variants: behavioral-variant frontotemporal dementia, primary-progressive aphasia, and semantic-variant primary progressive aphasia.¹²

Stages and Severity of Symptoms in Dementia

There 3 stages of dementia include mild, moderate, and severe dementia. Disease severity increases with each stage.¹³

Mild dementia

Mild dementia manifests can cause difficulties in learning and memory, language, visual and spatial skills, executive function, and voluntary movement. Patients with mild dementia also have difficulties working and completing tasks, but can still perform basic daily activities, such as bathing and maintaining personal hygiene.¹⁴

Moderate dementia

At this stage, cognitive function is drastically impaired and behavioral issues become more apparent. Many people experience delusions or hallucinations, agitation, and impulsive behavior. Patients have greater difficulty with daily functioning and decision-making. More involved care may also become necessary as a person's ability to function independently decreases.¹³

Severe dementia

Severe dementia is the most debilitating stage of dementia. Individuals may experience pain and suffer from weight loss, pneumonia, or other infections. Behavioral problems may be less common toward the end of the disease; however, distress, discomfort, and fear often remain. The focus for caregivers at this stage of dementia is to provide comfort to patients.¹³

Frequently Asked Questions

1. What are some risk factors for AD? What can you do to prevent AD?

Some common risk factors for AD include older age, family history, genetics, high blood pressure and/or cholesterol, diabetes, smoking, and poor diet. While some risk factors are nonmodifiable, others are not. Individuals can make changes in their lives to decrease their risk of developing AD, such as adopting a healthier diet and quitting smoking.¹⁵

While there is no way to prevent AD, data suggests that maintaining a healthy blood pressure, engaging in regular physical activity, and keeping the brain active with age can be beneficial. Continuous learning and problem-solving are just a couple of ways to keep the brain active.¹⁶

2. Does delirium cause damage to the brain?

Authors of a review article found that delirium can lead to damage to the brain. Impaired integrity of white matter, which is composed of nerve fibers associated with communication, and a decreased number of neurons in the brain were observed in some patients with delirium. However, a causal relationship is hard to discern. Cognitive impairment can be present, albeit undetected in older adults prior to the onset of delirium. Further research is needed on this topic.¹⁷

3. When does forgetfulness become dementia?

The progression of dementia can be very slow, which can make it easier to confuse early stages of the condition with simple forgetfulness. Dementia is distinguishable from strictly age-related memory problems in that it affects every aspect of one's life and their ability to function. Forgetfulness that is attributable to normal age-related memory loss will occur on occasion; however, with dementia, memory problems will continue to worsen and will be accompanied by behavioral changes.⁶

4. What are other conditions that can mimic AD?

Depression, anxiety, and infection are some conditions that may present similarly to AD. These conditions can cause varying degrees of cognitive impairment, which is also a hallmark symptom of AD. With further

investigation, such as via magnetic resonance imaging (MRI), it often becomes clear whether an individual has AD. There has also been a push to diagnose AD earlier in life, which may further minimize uncertainty regarding appropriate diagnosis.¹⁸

5. **Does delirium lead to dementia?**

Delirium can put people at a higher risk of developing dementia. It is important to keep in mind, however, that dementia is a very slowly progressing condition that may be present, but not yet noticeable prior to the onset of delirium. As such, while delirium can contribute to a heightened risk for dementia, it is not always the case. Mechanisms underlying the relationship between delirium and dementia are yet to be fully understood.³

For a full list of references, visit:

<https://www.neurologyadvisor.com/features/delirium-vs-dementia-older-adults-types-symptoms-diagnosis/>