

Alzheimer's Disease Symptoms

Early diagnosis is key to improving quality of life by getting the necessary care and treatment.

Memory loss

Forgetting recently learned information, important dates or events, and reliance on memory aids can be warning signs especially when they are disruptive to daily life.



Difficulty completing familiar tasks

Trouble following recipes or keeping track of bills and finances may be warning signs especially if these activities were completed routinely in the past.



Confusion with time and place

Forgetting how to get to familiar destinations, not being able to remember the rules to a common sport, and losing track of the season may be warning signs.



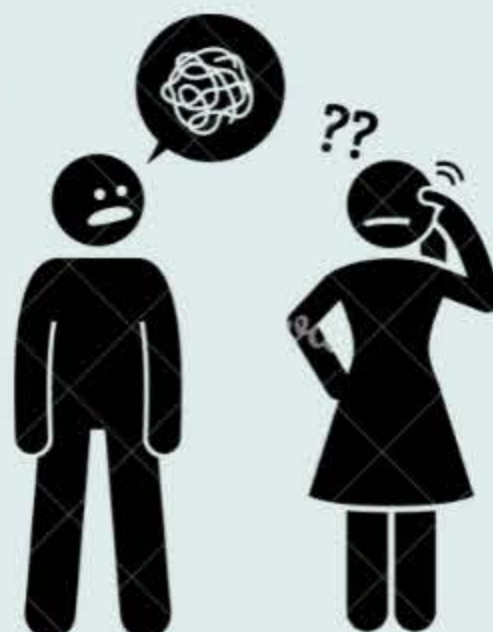
Withdrawal from social activities

As a result of losing the ability to effectively communicate and participate in activities, someone living with Alzheimer's disease may withdraw from social occasions or hobbies that they enjoy. Poor judgement and the inability to follow a favorite sports team may be warning signs.



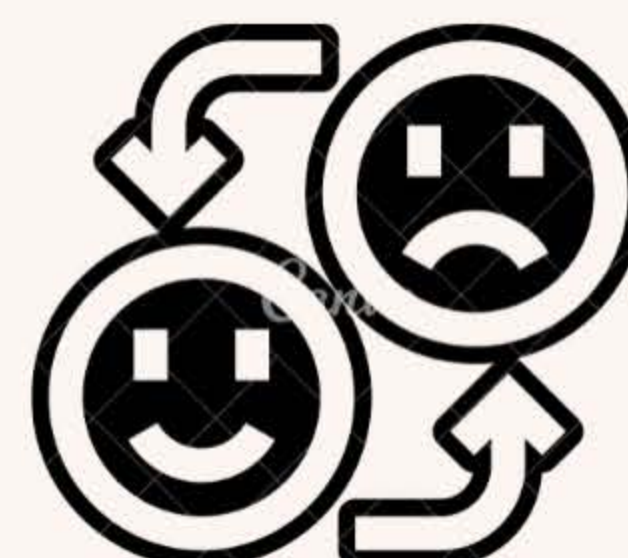
Problems with speaking and writing

Trouble following or joining a conversation, struggling with vocabulary, and difficulty reading may be warning signs



Changes in mood and personality

Increased feelings of anxiety, confusion, suspicion, depression, and fear with seemingly no reason may be warning signs.



Misplacing objects

Frequently putting things in unusual places and losing track of items that are commonly used can be warning signs.



Alzheimer's Disease Diagnosis Process

Physicians complete a comprehensive review of patient information including medical history, physical exam, diagnostic testing, neurologic testing, and brain imaging to make the diagnosis decision for a patient often with the insight of specialists such as neurologists and geriatricians. An important part of the process is determining that the patient is not being impacted by another disease.

Medical History

The patient's medical history is reviewed by the physician to gain a good understanding of any past and present medical issues. Psychiatric, cognitive, and behavioral changes are reviewed in detail. The physician will also ask about key medical conditions that have impacted relatives.



Physical Exam

The physical exam and lab results help physicians to determine the root cause of the symptoms and rule out other conditions that may present in a similar way. Common tests include blood pressure, listening to the lungs and heart, and collection of blood and urine samples for analysis.



Interviews with Family and Friends

Physicians may ask to meet with people close to the patient in order to gain a better understanding of how the patient's behavior and cognition have changed over time.



Neurological Exam

The neurological exam will test reflexes, coordination, muscle tone, eye movement, speech, and sensation in order to determine if the symptoms are likely caused by Alzheimer's disease or another health issue.



Brain Imaging

Magnetic resonance imaging (MRI) and computed tomography imaging (CT) are used to view the brain structure and identify any other issues such as tumors, evidence of stroke, or fluid buildup in the brain.



Genetic Testing

Testing is available that can determine if a patient is at an elevated risk of developing Alzheimer's disease. In order to test for the APOE4 gene, a blood sample is collected and analyzed. While this testing can provide information about the patient's risk of developing the disease, the test cannot determine if the patient will develop Alzheimer's disease or if they have already developed the disease.



Cognitive Testing

There are a wide variety of cognitive tests that can be administered, but in general they evaluate a patient's memory, thinking, and problem solving ability. The duration and complexity vary widely.

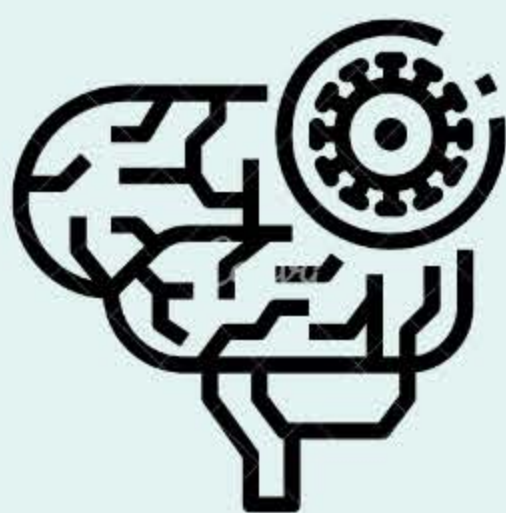


Important Alzheimer's Disease Terminology

Listed below are some of the commonly used terms when discussing Alzheimer's Disease, associated treatments, and care options available to patients.

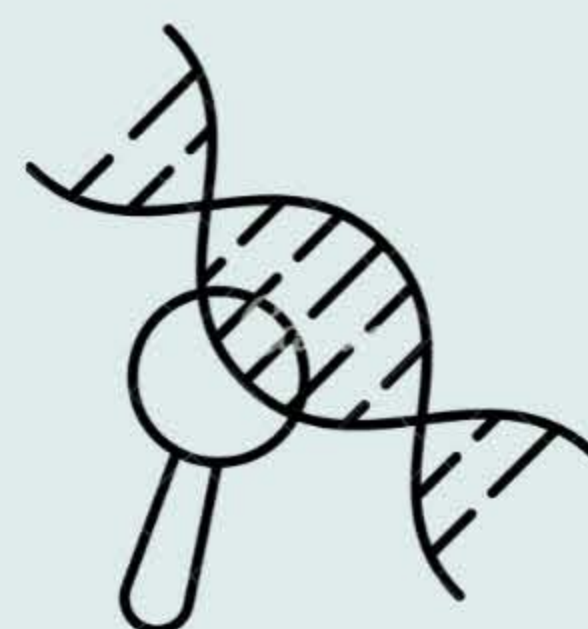
Amyloid-beta

A protein that is forms into clumps or bundles in the brain of patients with Alzheimer's disease.



APOE / APOE4

The presence of the Apolipoprotein E (APOE) / Apolipoprotein E4 (APOE4) gene is associated with increased risk for developing Alzheimer's disease, however it does not mean that if a patient has the gene that they have or will develop the disease.



Aphasia

Difficulty understanding what people are saying.



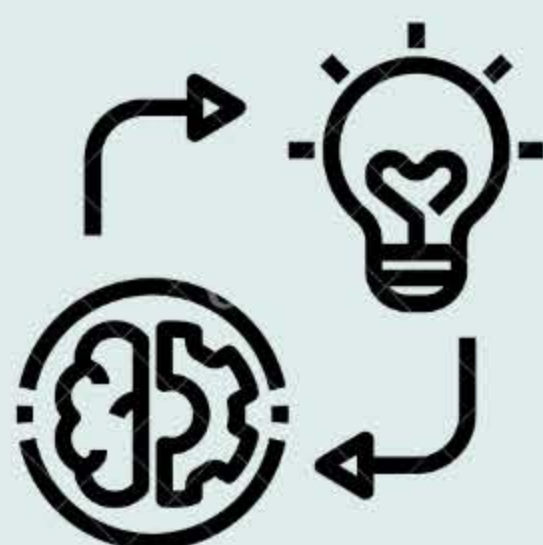
Atrophy

While atrophy means the loss of tissue generally and can be used in different disease settings, with Alzheimer's disease, the meaning refers to the loss of neurons and the connections between neurons.



Cognitive Abilities

The mental skills that people rely on daily such as memory, judgement, learning, and reasoning.



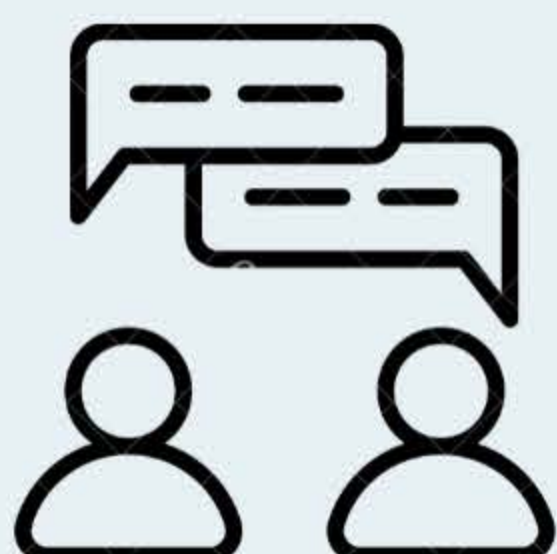
Gait

A persons gait or stride refers to their pattern of walking which requires balance and coordination. Reduced gait can be a symptom of Alzheimer's disease.



Dysphasia

The inability to find the correct word when talking or to understand the meaning of a word in conversation.



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In-home care

Services involve a caregiving professional or nurse that come to the patients home and provides support for the patient and the caretaker.



Mini Mental State Examination (MMSE)

This is a 30 minute test that screens for cognitive impairment mainly by testing memory and recall. This tool is often used to help diagnose dementia and can also be used to track symptoms over the course of years to determine if there is any cognitive decline.



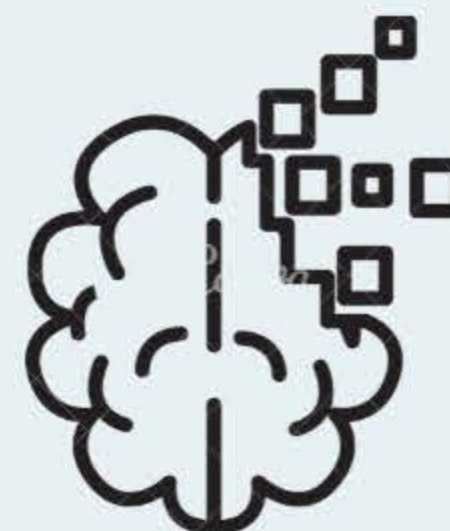
MoCA Test

Similar to the MMSE test, the MoCA test also screens for cognitive impairment but is more sensitive and tests a variety of cognitive functions.



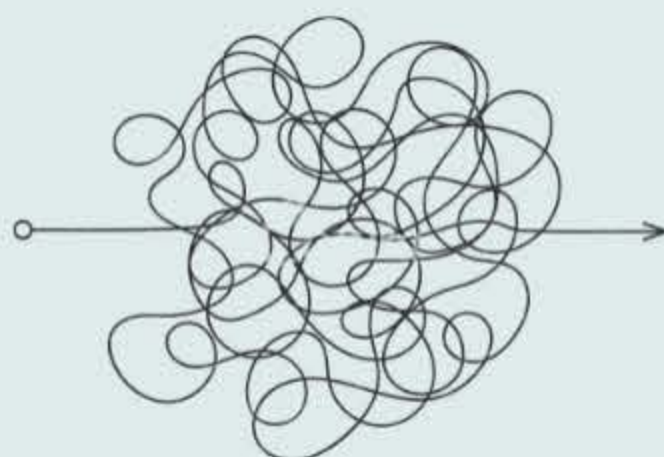
Neurodegeneration

This is the progressive loss of structure, loss of function, and death of brain cells called neurons. Alzheimer's, neurodegeneration may be caused by amyloid-beta and tau accumulation, oxidative stress, and/or mitochondrial dysfunction.



Neurofibrillary Tangles

These are abnormal accumulations of tau protein inside of neurons which create tangles that block cellular communication. These tangles are found in people with Alzheimer's disease.



Tau Protein

This is a protein that is commonly found in the healthy brain and central nervous system and supports the stabilization of cellular structures and cellular transportation. However, tau protein that is incorrectly shaped can accumulate and is thought to have a role in the neurodegeneration that commonly takes place in patients with Alzheimer's disease.



Plaques

These are clumps of beta-amyloid proteins that collect in the brain due to an overabundance of the proteins. These plaques often collect between brain cells and disrupt cellular function.

