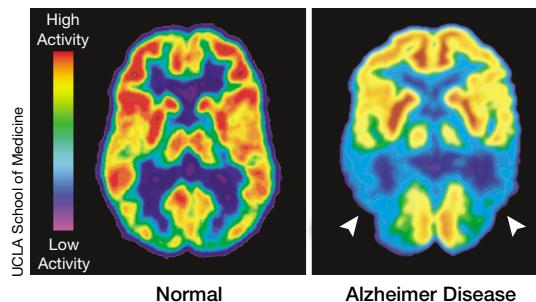


Alzheimer Disease

Dementia is a general decline in mental abilities including memory, language, and logical thinking that persists over time. Dementia can interfere with a person's normal daily activities and social relationships. **Alzheimer disease (AD)** is the most common form of dementia and affects approximately 4 million people in the United States. It usually affects people older than 65 years, although people in their 40s or 50s can have AD.

The exact cause of AD is not known. It is named for a German physician, Dr Alois Alzheimer, who in 1906 described abnormal clumps and tangles of fibers in a patient's brain after she died. These clumps and tangles are hallmarks of AD. They can only be seen by examining brain tissue under a microscope, so physicians use symptoms and testing to diagnose the disease. An article in the November 7, 2001, issue of *JAMA* discusses a type of brain imaging (**positron emission tomography**) sometimes used to evaluate people with dementia.



Positron emission tomography (PET) scans show the activity of brain cells in different regions of the brain. The red, orange, and yellow areas are the most active regions; green areas have mid-range activity, and blue and violet areas are the least active. In Alzheimer disease, brain activity is decreased especially in the back portion of the brain (arrowheads), areas important for processing language and memories.

SYMPTOMS OF ALZHEIMER DISEASE

Being forgetful does not mean that you have AD. Everyone has memory lapses at times. Symptoms of AD vary from person to person but gradually get worse over time.

Mild symptoms include

- Confusion and memory loss
- Being disoriented or getting lost in familiar surroundings
- Changes in personality and judgment

- Problems with sleeping
- Wandering or pacing
- Difficulty recognizing family and friends

Moderate symptoms include

- Difficulty with the activities of daily living such as bathing or feeding
- Anxiety, suspiciousness, agitation, or depression

Severe symptoms include

- Loss of speech
- Loss of appetite and weight loss
- Loss of bladder and bowel control
- Total dependence on others for daily living

DIAGNOSING ALZHEIMER DISEASE

- Medical history—Your doctor will ask about general health and past medical problems; he or she will want to know about any problems carrying out daily activities.
- Blood and urine tests—These may be done to eliminate other possible causes of dementia; in some cases, a small sample of spinal fluid may be taken.
- Neuropsychological tests—These are tests of memory, problem solving, attention, counting, and language to check mental ability.
- Brain scans—These are images taken of the brain with special machines. By looking at such images, your doctor can identify areas that are not normal.

TREATMENT

There is no cure for AD. There are medications that can sometimes delay the progression of the disease or improve symptoms such as agitation, sleeping problems, and depression. Support groups and respite care can help those caring for people with AD. Your doctor can help in selecting a treatment plan. Doctors, nurses, or social workers familiar with AD can make recommendations for making the living environment safer for a person with AD.

FOR MORE INFORMATION

- Alzheimer's Association
800/272-3900
www.alz.org
- Alzheimer's Disease Education and Referral Center
800/438-4380
www.alzheimers.org/adear
- Administration on Aging (Department of Health and Human Services)
202/619-7501
www.aoa.dhhs.gov
- National Institute of Neurological Disorders and Stroke (NINDS)
800/352-9424
www.ninds.nih.gov/health_and_medical/disorders/alzheimersdisease_doc.htm

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page Index on JAMA's Web site at www.jama.com. Patient Pages on aging and health were published in the January 26, 2000, and July 5, 2000, issues.

Sources: Administration on Aging (Department of Health and Human Services), Agency for Healthcare Research and Quality, American Association of Retired Persons, Centers for Disease Control and Prevention, American Medical Association Encyclopedia of Medicine, National Institute of Neurological Disorders and Stroke

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