

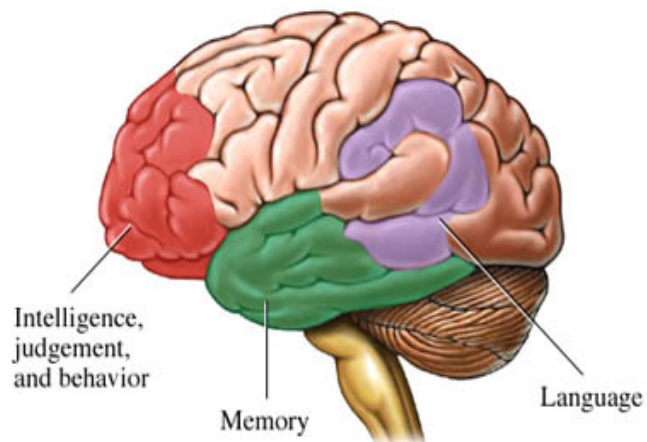
Alzheimer's Disease

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Definition

Alzheimer's disease is a progressive condition that destroys brain cells and structures. People with Alzheimer's disease slowly lose the ability to learn, function, and remember.

Areas of the Brain Affected by Alzheimer's Disease



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Causes

The cause of Alzheimer's disease is not yet known. Studies suggest that two main mechanisms may result in the clinical picture of the disease:

Plaques—abnormal deposits of a substance called beta amyloid in different areas of the brain

Neurofibrillary Tangles—twisted fibers within nerve cells

Risk Factors (A risk factor is something that increases your chance of getting a disease or condition)

- Age: 65 and older
- Previous serious, traumatic brain injury
- Lower educational achievement
- Down's syndrome
- Down's syndrome in a first-degree relative
- Women under 35 who give birth to a child with Down's syndrome
- Smoking
- Family history of Alzheimer's disease

Symptoms

Symptoms of Alzheimer's disease come on gradually. They begin as mild memory lapses, and progress to profound loss of memory and function. Alzheimer's disease is divided into three stages: Early, Intermediate, and Severe.

Symptoms include:

- Increasing trouble remembering things, such as
 - How to get to familiar places
 - The names of friends and family members
 - Where common objects are usually kept
 - Simple math
 - How to perform tasks, such as cooking, dressing, bathing, etc.
 - Getting lost in familiar surroundings
- Trouble concentrating on tasks
- Trouble completing sentences, due to lost or forgotten words (progresses to a complete inability to speak)
- Difficulty with daily life tasks such as bill paying and housekeeping
- Inability to remember the date, time of day, season
- Mood swings
- Withdrawal, loss of interest in usual activities
- Slow, shuffling walk
- Poor coordination
- Slowness and then loss of purposeful movement

Diagnosis

The doctor will ask about your symptoms and medical history, and perform a physical exam. There are no tests to definitively diagnose Alzheimer's disease. The doctor will ask many questions to rule out other causes of your symptoms. Tests to rule out other medical conditions may include:

- Neurological Exam
- Psychological and mental status testing
- CT Scan—a type of x-ray that uses a computer to make pictures of the brain
- MRI Scan—a test that uses magnetic waves to make pictures of the brain
- Electroencephalogram (EEG)—a test that measures electrical currents in the brain
- Blood tests and urine tests

Treatment

There are no treatments to cure Alzheimer's disease and no certain ways to slow its progression. Four medications have received US Food and Drug Administration (FDA) approval for the treatment of some symptoms of Alzheimer's dementia. Researchers are studying various drugs to see if they can manage the symptoms of Alzheimer's disease or slow its course.

Medications for Symptoms and Disease Progression

Medications being used and studied include:

- Cholinesterase inhibitors
 - donepezil, rivastigmine, galantamine
- NMDA receptor antagonist
 - memantine
- Antioxidants (vitamin E)
- Estrogen
- Anti-inflammatory agents
- Gingko Biloba (herbal supplement)
- Antidepressants—to treat depression
- Anxiolytics—to treat anxiety
- Antipsychotics—to treat severe confusion, paranoia, and hallucinations

Lifestyle Management

Managing the disease includes:

- Creating an environment in which you can receive the care you need
- Optimizing your quality of life
- Keeping yourself safe
- Helping yourself learn to deal with the frustration of your uncontrollable behavior
- Providing a calm, quiet, predictable environment
- Providing appropriate eyewear and hearing aids, easy-to-read clocks and calendars
- Playing quiet music
- Light, appropriate exercise to reduce agitation and relieve depression
- Encouraging family and close friends to visit frequently

Prevention

There are no guidelines for preventing Alzheimer's disease because the cause is unknown.

RESOURCES:

Alzheimer's Association

<http://www.alz.org>

Alzheimer's Disease Education and Referral Center

<http://www.alzheimers.org>