



Facts: About Alzheimer's disease

Prepared by the Alzheimer's
Association

Alzheimer's disease (pronounced *AHLZ-hi-merz*) is a disorder that destroys cells in the brain. The disease is the leading cause of dementia, a condition that involves gradual memory loss, decline in the ability to perform routine tasks, disorientation, difficulty in learning, loss of language skills, impairment of judgment, and personality changes. As the disease progresses, people with Alzheimer's become unable to care for themselves. The loss of brain cells eventually leads to the failure of other systems in the body. The rate of progression of Alzheimer's varies from person to person. The time from the onset of symptoms until death ranges from 3 to 20 years. The average duration is about 8 years.

What do we know about Alzheimer's?

Dr. Alois Alzheimer, a German physician, first described the disease in 1906. He observed in the autopsy of a woman with dementia two kinds of abnormal structures in the brain that are now recognized as hallmarks of Alzheimer's disease—amyloid plaques and neurofibrillary tangles. Since then, researchers have learned much about how these structures form, but they do not know exactly what role each structure plays in the loss of brain cells.

Studies have shown that the greatest known risk for developing Alzheimer's is increasing age. As many as 10 percent of people 65 years of age and older have Alzheimer's, and nearly 50 percent of people 85 and older have the disease. A family history of the disease is another known risk. Having a parent or sibling with the disease increases an individual's chances of developing Alzheimer's.

Scientists have identified three genes that cause rare, inherited forms of the disease that tend to occur before age 65. Investigations of these genes have provided important clues about the biology of Alzheimer's. Researchers have also identified one gene that raises the risk of the more common form of Alzheimer's that affects older people.

How is Alzheimer's disease diagnosed?

There is no single test to detect Alzheimer's disease. Currently, the ability to detect the abnormal structures in the brain of a living person does not exist. Therefore, a diagnosis is based on a thorough evaluation of symptoms and an assessment of an individual's health. A physician will use a variety of tests to assess memory and thinking skills and will usually ask for input from a family member about changes in an individual's memory or behavior. A physician will also conduct a thorough physical exam, review the individual's medical history, and order various laboratory tests that may require blood or urine samples or brain

imaging scans.

All of this information can help physicians identify the most probable cause of symptoms and rule out treatable conditions that may cause memory problems or other dementia symptoms. These include depression, adverse drug reactions, and nutritional deficiencies. Researchers continue to investigate ways to improve diagnostic tools. New strategies may lead to earlier diagnoses and, therefore, earlier treatment.

What treatments are available?

There are currently four drugs approved by the U.S. Food and Drug Administration for treating Alzheimer's disease symptoms—tacrine (Cognex), donepezil (Aricept), rivastigmine (Exelon), memantine (Namenda) and galantamine (Reminyl). About half of the people taking these medications show modest and temporary improvement in memory and thinking skills. Vitamin E is often prescribed because it may inhibit molecular activity contributing to brain cell damage. Other medications may be prescribed to treat such symptoms as agitation, anxiety, depression, and poor sleep. Many care strategies and activities can be used to manage behavior, prevent agitation, and improve the quality of life for people with the disease. Such strategies may also lessen the stress that caregivers often experience.

Researchers are pursuing several lines of investigation for developing new treatments that may delay onset or slow progression of the disease. Many scientists believe that in the years to come we will have a regimen of drugs rather than a “magic bullet” for treating people with Alzheimer's disease and related disorders.

What additional help is available?

The Alzheimer's Alliance of Northeast Texas, Inc. offers a broad range of programs and services for people with the disease, their families, and caregivers.

For information, call **(903)509-8323** or toll free **1-800-789-0508**, or visit our Web site at **<http://www.alzalliance.org>**.