

Causes and Risk Factors

Causes and Risk Factors No one knows yet exactly what causes Alzheimer's disease. Researchers are learning about what happens to the brain as we grow older, what happens to brain cells in Alzheimer's disease, genes associated with Alzheimer's, and many other factors that may be important. Most researchers agree that the cause may be a complex set of factors.

Biology of Alzheimer's disease

There are two abnormal structures in the brain associated with Alzheimer's disease. Amyloid plaques (pronounced *AM i loyd*) are clumps of protein fragments that accumulate outside of cells. Neurofibrillary tangles (pronounced *NUR o FI bri lair ee*) are clumps of altered proteins inside cells.

Research about these structures have provided clues about why cells die, but scientists have not determined exactly what role plaques and tangles play in the disease process and whether these are the key factors.

Age and family history

Studies have shown that the greatest known risk for developing Alzheimer's is increasing age. As many as 10 percent of all people 65 years of age and older have Alzheimer's. As many as 50 percent of all 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.

Genetics

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

Other factors

Much dementia research has focused on vascular risk factors, which are factors related to the blood circulation system. A great deal of evidence shows that disorders such as high cholesterol and high blood pressure—factors that cause strokes and heart disease—may also increase the risk for developing Alzheimer's.