Alzheimer’s disease is an irreversible, progressive brain disease that slowly destroys memory and thinking skills and, eventually even the ability to carry out the simplest tasks of daily living. In most people with Alzheimer’s, symptoms first appear after age 65. Alzheimer’s disease is the most common cause of dementia among older people.

The disease is named after Dr. Alois Alzheimer. In 1906, Dr. Alzheimer noticed changes in the brain tissue of a woman who had died of an unusual mental illness. Her symptoms included memory loss, language problems, and unpredictable behavior. After she died, he examined her brain and found many abnormal clumps (now called amyloid plaques) and tangled bundles of fibers (now called neurofibrillary tangles).

Plaques and tangles in the brain are two of the main features of Alzheimer’s disease. The third is the loss of connections between nerve cells (neurons) in the brain.

Although treatment can help manage symptoms in some people, currently there is no cure for this devastating disease.

What happens to the brain in Alzheimer’s disease?
Although we still don’t know how the Alzheimer’s disease process begins, it seems likely that damage to the brain starts a decade or more before problems become evident. During the preclinical stage of Alzheimer’s disease, people are free of symptoms, but toxic changes are taking place in the brain. Abnormal deposits of proteins form amyloid plaques and tau tangles throughout the brain, and once-healthy neurons begin to work less efficiently. Over time, neurons lose the ability to function and communicate with each other, and eventually they die.

Before long, the damage spreads to a nearby structure in the brain called the hippocampus, which is essential in forming memories. As more neurons die, affected brain regions begin to shrink. By the final stage of Alzheimer’s, damage is widespread, and brain tissue has shrunk significantly.

How many Americans have Alzheimer’s disease?
Estimates vary, but experts suggest that as many as 5 million Americans age 65 and older have Alzheimer’s disease. Unless the disease can be effectively treated or prevented, the number of people with it will increase significantly if current population trends continue. That’s because the risk of Alzheimer’s increases with age, and the U.S.

A Look at Alzheimer’s
population is aging. The number of people with Alzheimer’s doubles for every 5-year interval beyond age 65.

How long can a person live with Alzheimer’s disease?
Alzheimer’s is a slow disease that progresses in three stages—an early, preclinical stage with no symptoms, a middle stage of mild cognitive impairment, and a final stage of Alzheimer’s dementia. The time from diagnosis to death varies—as little as 3 or 4 years if the person is older than 80 when diagnosed to as long as 10 or more years if the person is younger.

Right now, there’s no proven way to prevent Alzheimer’s disease. Research into prevention strategies is ongoing. The strongest evidence so far suggests that you may be able to lower your risk of Alzheimer’s disease by reducing your risk of heart disease.

What is dementia?
Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—and behavioral abilities to such an extent that it interferes with a person’s daily life and activities. Dementia ranges in severity from the mildest stage, when it is just beginning to affect a person’s functioning, to the most severe stage, when the person must depend completely on others for basic activities of daily living.

Many conditions and diseases cause dementia. Two of the most common causes of dementia in older people are Alzheimer’s disease and vascular dementia, which is caused by a series of strokes or changes in the brain’s blood supply.

Other conditions that may cause memory loss or dementia include:
- medication side effects
- chronic alcoholism
- tumors or infections in the brain
- blood clots in the brain
- vitamin B12 deficiency
- some thyroid, kidney, or liver disorders

Many of these conditions are temporary and reversible, but they can be serious and should be treated by a doctor as soon as possible.

Emotional problems, such as stress, anxiety, or depression, can make a person more forgetful and can be mistaken for dementia. For instance, someone who has recently retired or who is coping with the death of a spouse may feel sad, lonely, worried, or bored. Trying to deal with these life changes leaves some people confused or forgetful. The emotional problems can be eased by supportive friends and family, but if these feelings last for a long time, it is important to get help from a doctor or counselor.