Intro to Alzheimer's

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Alzheimer's and Dementia Basics

Alzheimer's is the most common form of dementia, a general term for memory loss and other cognitive abilities serious enough to interfere with daily life. Alzheimer's disease accounts for 60 to 80 percent of dementia cases.

Alzheimer's is not a normal part of aging, although the greatest known risk factor is increasing age, and the majority of people with Alzheimer's are 65 and older. But Alzheimer's is not just a disease of old age. Up to 5 percent of people with the disease (more than 200,000 people in the United States alone) have early-onset Alzheimer's (also known as younger-onset Alzheimer's), when symptoms appear before age 65.

Alzheimer's worsens over time. Alzheimer's is a progressive disease, in which dementia symptoms gradually worsen over a number of years. In the early stages of Alzheimer's, memory loss is mild, but with late-stage Alzheimer's, individuals lose the ability to carry on conversations and respond to their environments. Alzheimer's is the sixth leading cause of death in the United States. Those with Alzheimer's live an average of eight years after their symptoms become noticeable to others, but survival can range from four to 20 years, depending on age and other health conditions.

Alzheimer's has no current cure, but treatments for symptoms are available and research continues. Although current Alzheimer's treatments cannot stop Alzheimer's from progressing, they can temporarily slow the worsening of dementia symptoms and improve quality of life for those with Alzheimer's and their caregivers. Today, there is a worldwide effort under way to find better ways to treat the disease, delay its onset and prevent it from developing.

Symptoms of Alzheimer's

The most common early symptom of Alzheimer's is difficulty remembering newly learned information. Our brains change as we age, just like the rest of our bodies. Most of us eventually notice some slowed thinking and occasional problems with remembering certain things. However, serious memory loss, confusion and other major changes in the way our minds work may be a sign that brain cells are failing.

The most common early symptom of Alzheimer's is difficulty remembering newly learned information, because Alzheimer's changes typically begin in the part of the brain that affects learning. As Alzheimer's advances through the brain, it leads to increasingly severe symptoms, including disorientation, mood and behavior changes; deepening confusion about events, time and place; unfounded suspicions about family, friends and
professional caregivers; more serious memory loss and behavior changes; and difficulty speaking, swallowing and walking.

**Alzheimer’s and the Brain**

Microscopic changes in the brain begin long before the first signs of memory loss. The brain has 100 billion nerve cells (neurons). Each nerve cell connects with many others to form communication networks. Groups of nerve cells have special jobs. Some are involved in thinking, learning and remembering. Others help us see, hear and smell.

To do their work, brain cells operate like tiny factories. They receive supplies, generate energy, construct equipment and get rid of waste. Cells also process and store information and communicate with other cells. Keeping everything running requires coordination, as well as large amounts of fuel and oxygen.

Scientists believe Alzheimer’s disease prevents parts of a cell’s factory from running well. They are not sure where the trouble starts. But, as in a real factory, backups and breakdowns in one system cause problems in other areas. As damage spreads, cells lose their ability to do their jobs and eventually die, causing irreversible changes in the brain.

**Alzheimer’s Biomedical Research Today**

Researchers are working to uncover as many aspects of Alzheimer’s disease and related dementias as possible. Ninety percent of what we know about Alzheimer’s has been discovered in the last 15 years. Some of the most remarkable progress has shed light on how Alzheimer’s affects the brain. The hope is that this better understanding will lead to new treatments. Many potential approaches are currently under investigation worldwide.

For more information, visit [www.alz.org/alzheimers_disease_what_is_alzheimers.asp](http://www.alz.org/alzheimers_disease_what_is_alzheimers.asp)