

# THE *Fat Summit*™ FOUNDATION

## Scouting Report: Alzheimer's Overview

Over the past few decades, Alzheimer's disease has evolved from a rare brain disorder to a major public-health crisis. Today, experts believe as many as five million Americans may have Alzheimer's disease. Additionally, there are millions of family members and other caregivers significantly affected by this disease. Our aging population makes Alzheimer's disease an especially critical issue.

### What Is Alzheimer's Disease?

Alzheimer's disease (AD) is the most common cause of *dementia* (a group of brain illnesses). It causes many nerve cells in the brain to weaken and die. Since nerve cells provide the “electrical wiring” in the brain, AD causes a steady, permanent decline in memory and mental function. A person's cognitive skills—remembering, thinking, and reasoning—begin to fade slowly and get worse with time. Eventually, the loss of intellectual and social skills are bad enough to change daily life.

### History

AD is named after Dr. Aloisius Alzheimer, a German psychiatrist and neuropathologist, who examined brain and spinal-cord tissue to aid in the diagnosis of mental illness. He worked with patients during the day and spent his evenings and nights at the microscope. In 1901, Dr. Alzheimer studied a patient named Auguste Deter at the Frankfurt Asylum. The 51-year-old woman had strange behavioral symptoms, including short-term memory loss, delusions, and screaming for hours at night. This unusual patient became Dr. Alzheimer's obsession over the final 14 years of his life.

Mrs. Deter died in 1906. Even though Dr. Alzheimer had a new job in a different city, he insisted on performing the autopsy on her brain. He identified significant changes in her brain tissues: abnormal lumps (now called *amyloid plaques*) and tangled nerve bundles (known as *neurofibrillary tangles*). These two brain transformations—along with damaged nerve cells that no longer provided connections in the brain—would turn out to be the three main characteristics of AD.

