

Dementia

The word *dementia* comes from the Latin *de*, meaning "apart," and *mens*, from the genitive *mentis*, meaning "mind." Dementia refers to the progressive deterioration of cognitive function, specifically the ability to process thought and intelligence. The Oxford Dictionary defines dementia as a serious mental disorder caused by brain disease or injury, which affects the ability to think, remember, and behave normally.

The issue of cognitive and memory loss has existed since the origin of humankind, including among animal species. It begins at birth. In ancient Egypt (around 2000 BC), there was considerable awareness of mental life, with the heart and diaphragm believed to be the centers of pathogenesis causing memory disorders. Additionally, figures like Horace and Plato seemed to equate memory problems with senile dementia. Roman and Greek historians also described bizarre and atypical behavior in individuals experiencing mental decline. Galen and Hippocrates noted these issues as cerebral impairments and disturbances of thought in their earlier writings. In the Middle Ages, memory problems were considered mysterious and were of lesser concern. The popular novel *Gulliver's Travels* (1726), written by Irish author Jonathan Swift, also explored themes of memory loss, particularly in old age. In the modern era, the German psychiatrist and neurologist Alois Alzheimer (1864–1915) made a significant contribution to understanding dementia by identifying what he called "presenile dementia." This helped establish a clearer understanding of the disorder and its effects on the brain.

Dementia is the gradual decline of mental functions and overall personality, including cognitive problems that appear in patients. People with dementia gradually lose previously acquired skills, as well as other executive mental functions such as planning, judgment, and abstract thinking. Psychiatric disorders, such as agitation, delusions, and depression, are also very common in patients with dementia. Dementia is a pathological process in the brain that reduces quality of life and is caused by a number of different illnesses. While forgetfulness may occur as part of the normal aging process, it does not impact daily living activities the way dementia does. Therefore, dementia is distinct from the symptoms associated with normal aging. However, dementia can affect people at any age. According to the World Alzheimer Report, dementia is often associated with Alzheimer's disease, which accounts for almost 70% of its signs and symptoms. It is significantly more common among elderly individuals and is a syndrome that has been found almost exclusively in older adults. Some researchers claim that the prevalence of dementia increases with age, affecting approximately 5-8% of individuals over age 65, 15-25% of individuals over age 75, and approximately 15-50% of individuals over age 85. It is important to note that dementia is not a normal part of the aging process.

While most researchers agree that there is no single, specific cause of dementia, the most common causes include: Alzheimer's disease, drugs and substances (such as alcohol), brain tumors, neurological disorders like Parkinson's disease and Huntington's disease, head injuries, malnutrition, endocrine abnormalities, brain infections, vascular dementia caused by strokes, excessive alcohol consumption, Creutzfeldt-Jakob disease, nutritional deficiencies (such as vitamin B12 and folate deficiencies), and certain types of hydrocephalus. According to most experts, dementia is classified into three main categories: 1) Early stage (mild), 2) Middle stage (moderate dementia), and 3) Later stage (severe dementia). Dementia can present with ambiguous characteristics and, over time, progressively makes the person more disabled. Research indicates that dementia is a significant public health issue, and it should be considered a public priority. However, it remains under-recognized in primary care settings, with an estimated 65% of cases going undiagnosed by physicians in the community.

The disease is often referred to in terms of its stages: "early stage," "middle stage," or "late-stage" dementia. However, more precise stages are usually assigned based on an individual's symptoms. One commonly used scale is the Global Deterioration Scale (GDS) for the assessment of primary degenerative dementia, which divides the disease process into seven stages based on the extent of cognitive decline. The GDS is most relevant for people with Alzheimer's disease, as other types of dementia (e.g., frontotemporal dementia) may not always involve memory loss. The GDS is also known as the Reisberg Scale, which helps distinguish stages of dementia based on a patient's characteristics.

In addition to the GDS, other scales are also used to define or screen patients for dementia, such as the 7-stage Functional Assessment Staging. This scale focuses on functioning and daily activities in relation to cognitive decline.

- In the 1st stage the person shows normal function, has no memory loss, and is mentally healthy. People with no dementia would be considered to be in Stage 1, is called no cognitive decline(no dementia)
- In the 2nd stage there is normal forgetfulness associated with aging; for example, forgetfulness of names and familiar objects. Symptoms are not evident to loved ones or the physician. That is called very mild cognitive decline(no dementia).
- The 3rd stage of dementia includes increased forgetfulness, slight difficulty concentrating, decreased work capacity and its average duration remains up to 7 years. People may get lost more often or have difficulty finding the right words. At this stage, a person's loved ones will begin to notice a cognitive decline. It is called mild cognitive decline (no dementia).
- The 4th stage includes difficulty concentrating, decreased memory of recent events, and difficulties managing finances or traveling alone to new locations. The average duration is 2 years. People have trouble completing complex tasks efficiently or accurately and may be in denial about their symptoms. They may also start withdrawing from family or friends because socialization becomes difficult. At this stage, a physician can detect clear cognitive problems during a patient interview and exam. It is called moderate cognitive decline(no dementia).
- The duration of the 5th stage holds at least 1.5 years. People in this stage have major memory deficiencies and need some assistance to complete their daily activities (dressing, bathing, preparing meals). Memory loss is more prominent and may include major relevant aspects of current lives; for example, people may not remember their address or phone number and may not know the time or day or where they are. It is called moderately severe cognitive decline (no dementia).
- People in Stage 6 require extensive assistance to carry out daily activities. They start to forget names of close family members and have little memory of recent events. Many people can remember only some details of earlier life. They also have difficulty counting down from 10 and finishing tasks. Incontinence (loss of bladder or bowel control) is a problem in this stage. Ability to speak declines. Personality changes, such as delusions (believing something to be true that is not), compulsions (repeating a simple behavior, such as cleaning), or anxiety and agitation may occur. Average duration: 2.5 years. It is called severe cognitive decline (middle dementia) (mild-stage).
- People in stage 7 have essentially no ability to speak or communicate. Its average duration is 2.5 years. They require assistance with most activities (e.g., using the toilet, eating). They often lose psychomotor skills, for example, the ability to walk. It is called very severe cognitive decline (late-stage dementia).

A variety of medications have been used over time to treat people with dementia, and a wide range of herbal remedies, medical foods, and dietary supplements have been promoted to improve memory or prevent Alzheimer's disease and related dementias. However, most established treatments are only able to relieve symptoms. Strong scientific evidence is still required to confirm the effectiveness of many of these approaches. Understanding the key characteristics and underlying pathology of each type of dementia can help ensure accurate diagnosis, allowing patients to receive appropriate treatment and support to maintain the highest possible quality of life. Among available treatments, three cholinesterase inhibitors are commonly prescribed for the early stage of dementia.

Activity A

1. The word "dementia" is derived from Latin, with "de" meaning "mind" and "mens" meaning "apart."
F
2. In ancient Egypt, memory disorders were believed to be caused by the brain. F
3. Galen and Hippocrates described memory issues as disturbances of thought and cerebral impairments in their writings. T
4. In the Middle Ages, memory problems were given significant attention and were considered a major concern. F
5. Jonathan Swift's novel *Gulliver's Travels* (1726) is considered one of the first literary works to address themes of memory loss in old age. T
6. Alois Alzheimer identified "presenile dementia" and made a significant contribution to the understanding of dementia in the modern era. T

Activity B

1. Dementia is a normal part of the aging process and affects all elderly individuals. F
2. People with dementia gradually lose previously acquired skills and other executive functions such as planning and judgment. T
3. Dementia is typically caused by just one illness and has a single, specific cause. F
4. According to the World Alzheimer Report, Alzheimer's disease accounts for almost 70% of the signs and symptoms of dementia. T

Activity C

1. Dementia has a single, specific cause that can be easily identified. F
2. According to most experts, dementia is classified into three main categories: early stage, middle stage, and late stage. T
3. Research suggests that dementia is well recognized in primary care settings, with very few cases going undiagnosed. F

Activity D

1. The stages of dementia are only referred to in broad terms like "early stage," "middle stage," or "late-stage." F
2. The Global Deterioration Scale (GDS) divides the dementia disease process into seven stages based on cognitive decline. T
3. The GDS is equally relevant for all types of dementia, including frontotemporal dementia. F
4. Stage 1 of dementia is characterized by normal function and no memory loss. T
5. In the 3rd stage of dementia, people may have difficulty finding the right words and may get lost more often. T
6. Stage 5 of dementia is characterized by major memory deficiencies and the need for some assistance with daily activities such as dressing and bathing. T
7. People in Stage 7 of dementia can still communicate and carry out most daily activities independently. F
8. Medications and treatments for dementia can cure the disease. F