

What is Dementia?

Dementia is a group of medical conditions characterized by a deterioration of cognitive function. In individuals with dementia, abnormal brain changes result in altered behavior and a decline in thinking, memory, and the ability to perform regular tasks. While the risk of developing dementia increases with age, the condition is not a normal part of aging.

Common forms of dementia include:

- **Alzheimer's disease**, an irreversible condition characterized by abnormal protein deposits in the brain referred to as plaques and tangles
- **Vascular dementia**, which occurs when blood supply to the brain is blocked, depriving brain cells of oxygen
- **Lewy body dementia**, which is characterized by abnormal protein deposits of alpha-synuclein proteins inside the brain's nerve cells
- **Frontotemporal dementia**, which is a group of disorders affecting the frontal and temporal lobes of the brain, areas associated with personality and behavior

Signs, symptoms, and complications

Progression and symptoms of dementia may vary between individuals. The symptoms of dementia commonly present in the following three stages:

Early-stage	Middle-stage	Late-stage
<ul style="list-style-type: none"> ● Forgetting details of recent events ● Becoming lost more easily ● Exhibiting poor judgment ● Being more irritable or upset ● Rigidity (i.e., being less adaptable to change) ● Losing interest in regular activities ● Taking more time to grasp ideas 	<ul style="list-style-type: none"> ● Confusing friends or family members ● Becoming very repetitive ● Being confused about time and place ● Having increased difficulty communicating ● Becoming lost at home ● Inappropriate behavior 	<ul style="list-style-type: none"> ● Failing to recognize family or friends ● Difficulty walking ● Requiring help with personal care ● Losing the ability to speak and understand ● Uncontrolled movements ● Behavior changes (e.g., increased aggression)

Causes and risk factors

The causes and risk factors for dementia include:

- Family history and genetic susceptibility (e.g., Apolipoprotein E ε 4 allele)
- Certain health conditions (e.g., diabetes, depression, hypertension)
- Smoking
- Lack of social or cognitive stimulation
- Vitamin D deficiency
- Environmental factors (e.g., air pollution, pesticides, increased aluminum in drinking water)
- Low educational attainment
- Obesity
- Certain medications (e.g., proton pump inhibitors, antidepressants in elderly individuals)

Diet and Dementia

Studies on the Mediterranean diet and Mediterranean-DASH (Dietary Approaches to Stop Hypertension) diet suggest that following these patterns of eating may help reduce the risk of dementia. The table below summarizes foods to enjoy, moderate, and limit on the Mediterranean diet.

Enjoy	Moderate	Limit
Cold-pressed extra-virgin olive oil Vegetables Fruits Whole grains Legumes (e.g., beans, lentils, peas) Nuts and seeds	Lean meats (e.g., chicken, turkey) Eggs Fish Fermented dairy (e.g., yogurt, cheese) Red wine	Red meat (e.g., beef, pork, lamb) Refined and processed foods (e.g., cereals, frozen entrees, fast foods) Sugar (e.g., desserts, soda, candy, syrups, baked goods, fruit drinks)

Lifestyle and Dementia

Several modifiable lifestyle factors are associated with a reduced risk of dementia. **Regular physical activity** may improve cardiometabolic risk factors related to the condition, such as obesity and hypertension. Sleep dysfunction or insufficient sleep has been associated with cognitive impairment in elderly individuals. Aim for **seven to eight hours of sleep** per night, maintaining a regular bedtime.

Research also suggests that **lifelong learning** may reduce the risk of cognitive decline. Additionally, regular sauna bathing may provide a protective effect. **Quitting smoking** may reduce the risk for individuals who smoke to levels comparable to non-smokers.