

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 types of dementia



Alzheimer's disease

Alzheimer's disease is an irreversible condition characterized by abnormal protein deposits in the brain referred to as plaques and tangles.



Vascular dementia

Vascular dementia occurs when blood supply to the brain is blocked, depriving brain cells of oxygen.



Lewy body dementia

Lewy body dementia is characterized by abnormal protein deposits of alpha-synuclein proteins inside the brain's nerve cells.



Frontotemporal dementia

Frontotemporal dementia refers to 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 three stages outlined in the table below.

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• Being less adaptable to change (i.e., rigidity)• 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• Exhibiting inappropriate behavior	<ul style="list-style-type: none">• Failing to recognize family or friends• Having difficulty walking• Requiring help with personal care• Losing the ability to speak and understand• Experiencing uncontrolled movements• Experiencing behavior changes (e.g., increased aggression)

Causes and risk factors

- Certain health conditions (e.g., diabetes, depression, hypertension)
- Certain medications (e.g., proton pump inhibitors, antidepressants in elderly individuals)
- Environmental factors (e.g., air pollution, pesticides, increased aluminum in drinking water)
- Family history and genetic susceptibility (e.g., Apolipoprotein E ε4 allele)
- Lack of social or cognitive stimulation
- Low educational attainment
- Obesity
- Smoking
- Vitamin D deficiency

Preventing and addressing dementia

Lifestyle modifications shown to reduce the risk of dementia include a healthy diet, regular physical activity, sufficient sleep, cognitive activities, and smoking cessation.

Diet

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

Enjoy	Moderate	Limit
<ul style="list-style-type: none">• Cold-pressed extra-virgin olive oil• Vegetables• Fruits• Whole grains• Legumes (e.g., beans, lentils, peas)• Nuts and seeds	<ul style="list-style-type: none">• Lean meats (e.g., chicken, turkey)• Eggs• Fish• Fermented dairy (e.g., yogurt, cheese)• Red wine	<ul style="list-style-type: none">• 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)



Physical activity

Regular physical activity may improve cardiometabolic risk factors related to dementia, such as obesity and hypertension. Studies indicate that low-intensity physical activity, such as walking, is associated with a reduced risk of dementia. According to the guidelines provided by the U.S. Department of Health and Human Services, adults should get a minimum of 150 minutes of moderate-intensity exercise (e.g., walking, jogging, swimming) per week and at least two sessions of muscle-strengthening activities per week. Older adults are advised to also engage in balance training exercises such as tai chi and yoga.

Sleep

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.

Cognitive activities

Research suggests that lifelong learning and participating in cognitive activities, such as chess, crossword puzzles, or playing an instrument, may reduce the risk of cognitive decline.

Smoking cessation

Smoking can increase your risk of developing dementia. If you smoke, quitting smoking can reduce your risk to levels comparable to non-smokers.





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Updated: October 2021