

What is Dementia?

Lesson Summary

What is cognition?

Cognition is our ability to interact with the world around us. It includes functions such as:

- **Learning and memory** – our ability to remember conversations and events or learn new information
- **Language** – reading, writing, speaking, and understanding
- **Visual and spatial functions** – how we navigate our environment
- **Executive function** – how we make decisions, solve problems, and organize our lives
- **Social function** – how we interact appropriately with family, friends, and colleagues

Dementia is a general term for a decline in cognitive function, including memory, thinking, and decision-making, that interferes with daily life.

What is dementia?

Dementia occurs when certain areas of the brain become damaged, leading to weakened cognitive functions. When this impairment is severe enough to affect a person's ability to function independently day-to-day, it is classified as dementia. Symptoms of dementia vary depending on which cognitive functions are affected:

- **Learning and memory** – forgetting medications, repeating oneself, or missing appointments
- **Language** – difficulty recalling names, finding words, or expressing oneself
- **Visual and spatial** – trouble with driving and getting lost in familiar places
- **Executive function** – difficulty with complex tasks, planning, and organizing.
- **Social function** – changes in personality, inappropriate behaviour, and unsafe decisions

What are the most common causes of dementia?

Dementia is most commonly caused by toxic proteins in the brain or blood vessel damage due to age, high blood pressure, or previous strokes. Dementia caused by blood vessel damage is known as vascular dementia. Neurodegenerative disorders, such as Alzheimer's disease, are caused by toxic proteins. Other protein-related conditions include dementia with Lewy bodies, frontotemporal dementia, and Parkinson's disease dementia.

What are other causes of cognitive impairment?

Other problems in the body can impact the brain and cause memory and thinking issues, which may be **reversible**.

These reversible causes include:

- **Illnesses** – for example, pneumonia or urinary tract infections causing delirium
- **Depression** – cognitive signs and symptoms are common, but depression can be treated with psychotherapy and/or medications
- **Medications** – many medications may have adverse effects on cognition, including pain medicines such as opioids, anti-seizure medications, over-the-counter drugs, and others
- **Alcohol** – alcohol and other substance use disorders often impact cognition, either in intoxication or withdrawal
- **Other conditions** – many other medical issues can affect the brain, including concussions, thyroid issues, electrolyte imbalances, vitamin B12 deficiency, and others

It is important to be assessed by a healthcare professional to determine the correct diagnosis and exclude these other causes before diagnosing dementia.

How is dementia treated?

Currently, there is no cure for dementia. However, treating reversible causes of cognitive impairment can often yield positive results, and in some cases, memory and thinking problems may be completely reversible. For dementia caused by blood vessel damage, managing blood pressure, cholesterol levels, and diabetes is crucial to slowing the progression of cognitive symptoms.

Cognitive enhancing medications

There are medications, known as cognitive enhancers, that can help manage dementia symptoms. These include cholinesterase inhibitors and memantine. Cholinesterase inhibitors boost levels of neurotransmitters in the brain, helping it function better, while memantine aims to limit damage to nerve cells. Although these medications do not treat the underlying cause of dementia, they can sometimes slow its progression and have a modest effect on function for some people. However, they do not work for everyone and may have side effects.

Learn more with our lesson '[How is Dementia Treated?](#)'.

Activities to promote brain health

Engaging in activities that promote brain health is always encouraged. These activities include regular exercise, proper nutrition, staying cognitively and socially active, and maintaining good blood vessel health.

Learn more with our lesson '[How to Promote Brain Health](#)'.

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