

Dementia

Dementia is not a specific disease. It is a general term that describes a group of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities.

Alzheimer's disease accounts for 60 to 80 percent of cases. **Vascular dementia**, which occurs after a stroke, is the second most common dementia type. But there are many other conditions that can cause symptoms of dementia, including some that are reversible, such as thyroid problems and vitamin deficiencies.

Memory loss and other symptoms of dementia

While symptoms of dementia can vary greatly, at least two of the following core mental functions must be significantly impaired to be considered dementia:

- Memory
- Communication and language
- Ability to focus and pay attention
- Reasoning and judgment
- Visual perception

People with dementia may have problems with short-term memory, keeping track of a purse or wallet, paying bills, planning and preparing meals, remembering appointments or travelling out of the neighbourhood.

Many dementias are progressive, meaning symptoms start out slowly and gradually get worse. If you or a loved one is experiencing memory difficulties or other changes in thinking skills, don't ignore them. See a doctor soon to determine the cause.

Causes

Dementia is caused by damage to brain cells. This damage interferes with the ability of brain cells to communicate with each other. When brain cells cannot communicate normally, thinking, behaviour and feelings can be affected.

The brain has many distinct regions, each of which is responsible for different functions (for example, memory, judgment and movement). When cells in a particular region are damaged, that region cannot carry out its functions. Different types of dementia are associated with particular types of brain cell damage in particular regions of the brain. For example, in Alzheimer's disease, high levels of certain proteins inside and outside brain cells make it hard for brain cells to stay healthy and to communicate with each other. The brain region called the hippocampus is the centre of learning and memory in the brain, and the brain cells in this region are often the first to be damaged. That's why memory loss is often one of the earliest symptoms of Alzheimer's.

While most changes in the brain that cause dementia are permanent and worsen over time, thinking and memory problems caused by the following conditions may improve when the condition is treated or addressed:

- Depression
- Medication side effects
- Excess use of alcohol
- Thyroid problems
- Vitamin deficiencies

Treatment and Care

Treatment of dementia depends on its cause. In the case of most progressive dementias, including Alzheimer's disease, there is no cure and no treatment that slows or stops its progression. But there are drug treatments that may temporarily improve symptoms. Non-drug therapies, such as music therapy, can also alleviate some symptoms of dementia.

Risk and Prevention

Some risk factors for dementia, such as age and genetics, cannot be changed. But researchers continue to explore the impact of other risk factors on brain health and prevention of dementia. Some of the most active areas of research in risk reduction and prevention include cardiovascular factors, physical fitness, and diet.

Cardiovascular risk factors: Your brain is nourished by one of your body's richest networks of blood vessels. Anything that damages blood vessels anywhere in your body can damage blood vessels in your brain, depriving brain cells of vital food and oxygen. Blood vessel changes in the brain are linked to vascular dementia. They often are present along with changes caused by other types of dementia, including Alzheimer's disease. These changes may interact to cause faster decline or make impairments more severe. You can help protect your brain with some of the same strategies that protect your heart – don't smoke; take steps to keep your blood pressure, cholesterol and blood sugar within recommended limits; and maintain a healthy weight.

Physical exercise: Regular physical exercise may help lower the risk of some types of dementia. Evidence suggests exercise may directly benefit brain cells by increasing blood and oxygen flow to the brain.

Diet: What you eat may have its greatest impact on brain health through its effect on heart health. The best current evidence suggests that heart-healthy eating patterns, such as the Mediterranean diet, also may help protect the brain. A Mediterranean diet includes relatively little red meat and emphasizes whole grains, fruits and vegetables, fish and shellfish, and nuts, olive oil and other healthy fats.