

Dementia

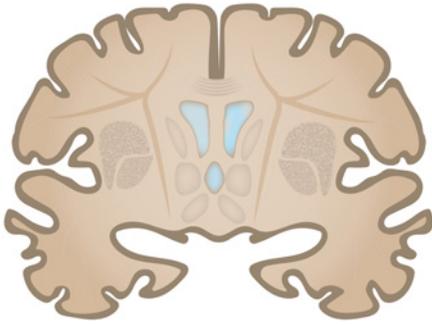
Definition

Dementia is the term used for a group of symptoms that commonly includes problems with memory, thinking, problem solving, language and perception.

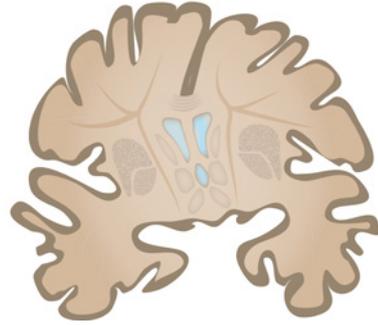
Symptoms

The symptoms of Dementia are caused by different diseases that affect the brain, such as Alzheimer's Disease and Vascular Dementia. The symptoms that someone with Dementia exhibits will be different based on the area of the brain affected. The true cause of dementia is still unknown, but it is thought that ageing, genes, lifestyle and health all play a role in its development.





Healthy brain



Severe Alzheimer's Disease brain

Types of Dementia

1

Alzheimer's Disease

There are over 100 different types of Dementia and the most common is Alzheimer's Disease. It accounts for approximately 60-80% of all cases making it the best understood of all Dementia types. Thought to be caused by deposits of two abnormal proteins in the brain, Amyloid and Tau, Alzheimer's is routinely associated with plaques and tangles that develop as a result.

- Amyloid is chemically sticky and the buildup of amyloid is known as plaques. Plaques cause cell death as they stop the transfer of information between neurons (brain cells)
- Tau blocks the movement of nutrients and other essential molecules which essentially help keep the cells healthy
- Plaques stop the transfer of chemical information between the cells in the brain
- Tangles is the presence of Tau that helps to keep the flow of essential nutrients and other molecules within the cells in a straight line. Tau can sometimes collapse and develop into tangles that prevent transportation within the neuron, which eventually leads to neuronal death

Symptoms of Alzheimer's disease include difficulty recalling recent conversations, names or events; a lack of apathy, decreased motivation, changes in mood and mood swings, problems with word finding, disorientation, poor judgement and depression. It can also affect mobility.

2

Vascular Dementia

Vascular Dementia relates to blood flow to the brain and differs from Alzheimer's disease as it does not primarily affect memory. Blood flow may be disrupted if the blood vessels become blocked or bleeding occurs in the brain as a result of a Stroke (CVA). Lack of blood supply means that oxygen and nutrients carried within the blood don't reach the brain leading to cell (neuron) death.

Symptoms include an inability to plan, organize or make decisions. Concentration is also affected which can lead to the individual wandering off and getting lost in familiar environments. Short-term memory is predominately affected leading to problems in the individual's ability to following instructions.

3

Mixed Dementia

Mixed Dementia, is when someone exhibits symptoms of both Alzheimer's Disease and Vascular Dementia.

4

Lewy Bodies Dementia

Dementia with Lewy Bodies is closely associated to Alzheimer's Disease and Parkinson's Disease as it shares several of their characteristics. Lewy bodies are tiny clumps of another type of protein that develops inside the neurons (brain cells) and prevent the cells communicating with each other, i.e. passing on chemical messages.

Lewy Bodies Dementia causes problems with balance and gait, like Parkinson's disease. A hunched posture, trembling, rigidity in the muscles and reduced facial expression are common. Characteristics of Lewy Body Dementia are visual hallucinations, usually of people or animals. Sufferers can also experience nightmares and have trouble interpreting visual information, which can lead to them acting out their dreams.

5

Frontotemporal Dementia

Frontotemporal Dementia is the second most common type of Dementia in people under the age of 65 and there are two main types:

- Behavioural Variant Frontotemporal Dementia - symptoms are usually a change in behavior or personality. In the initial stages of the disease the symptoms can be very difficult to detect however, as it progresses symptoms including disinhibition, apathy, loss of empathy or increasing obsession and repetitive behavior are reported.
- Primary Progressive Aphasia Frontotemporal Dementia - characterised by its effect on language as this type of Dementia affects the temporal lobe of the brain responsible for language. Symptoms can include difficulty with word finding, losing understanding of what a word means, difficulty with reading and spelling as well as difficulty understanding what other people are saying. The individual's speech itself may be slow or hesitant and they may pronounce words incorrectly, say the opposite word to the one they mean or miss out small words in a sentence such as 'and' or 'the'.