

## What is Dementia?

### Causes, symptoms & treatments

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The term 'dementia' describes a set of symptoms which includes loss of memory and a decline in other cognitive skills severe enough to interfere with a persons' ability to function at work, in relationships and in everyday activities. These symptoms occur as a result of a neurodegenerative disease process, such as Alzheimer's disease, as well as by other conditions that are considered "reversible".

Dementia is often incorrectly referred to as "senility" or "senile dementia". These terms reflect a false formerly held widespread belief that serious mental decline was a part of normal aging.

#### Symptoms of Dementia

The symptoms of dementia can vary greatly, however a person must experience significant changes in at least two of the following core cognitive areas to be considered dementia.

- Memory
- Communication and use of language
- Ability to focus and pay attention
- Reasoning and judgement
- Visual perception

Many dementias are progressive, meaning the symptoms start out slowly and gradually get worse over time. How fast a dementia progresses depends on the individual person and the type of dementia they have.

#### Causes of Dementia

There are many diseases and conditions that result in dementia, some of which are reversible. This means the underlying condition can be treated and the symptoms of dementia cleared. The most common cause of reversible dementia is a toxic reaction to medication, either prescription or over the counter. Depression, thyroid problems, vitamin deficiencies and excess use of alcohol are other conditions that can be treated.

Early diagnosis is essential to make sure that people with these conditions get the right treatment.

Unfortunately, there are many causes of dementia that result from damage to brain cells that cannot be repaired. These are termed "irreversible" dementias and include:

#### Alzheimer's disease

This is the most common cause of dementia in Canada, accounting for 64% of all cases. During the course of the disease the chemistry and structure of the brain change, leading to the death of brain cells. Typically, Alzheimer's disease causes a slow onset of memory loss that affects a person's ability to function on a day to day basis. The person also experiences changes in judgement and reasoning and familiar tasks become harder to perform. Gradually, all areas of brain functioning becomes impaired.

## Vascular Dementia

Vascular dementia, also called 'multi-infarct dementia' is the second leading cause of dementia in Canada, accounting for about 20% of all cases. It occurs when brain cells are deprived of oxygen. A network of blood vessels called the vascular system supplies the brain with oxygen. If there is a blockage in the vascular system, or if it is diseased, blood is prevented from reaching the brain. As a result cells in the brain die, leading to the symptoms of dementia. These symptoms can occur suddenly, following a stroke, or over time through a series of small strokes. Vascular dementia is often described as having a step-wise progression.

## Lewy Body Dementia

Lewy Body dementia occurs because of abnormal deposits of a protein called alpha-synuclein inside brain cells. These deposits interrupt the brain's ability to send messages from one cell to another.

Lewy Body dementia can occur by itself, or together with Alzheimer's disease or Parkinson's. It accounts for 5 – 15% of all dementias. Problems with memory may not be an early symptom, but can come up as the disease progresses. Visual hallucinations (seeing things that are not real) are common and can be worse during times of increased confusion. Some features of this disease resemble those in Parkinson's disease. These include tremors, rigidity, stooped posture, and slow shuffling movements.

## Frontotemporal Dementia (Including Pick's Disease)

Frontotemporal dementia (FTD) is an umbrella term for a group of rare disorders that primarily affect the frontal and temporal lobes of the brain – the areas

generally associated with personality and behaviour. In some cases, brain cells in these areas shrink or die. In other case, the brain cells in these areas get larger, containing round, silver "Pick's bodies". **Pick's disease** refers to a subtype of frontotemporal dementia that has these specific abnormalities. In FTD, the changes in the brain affect the person's ability to function. They may experience sudden onset of memory loss, behaviour changes, or difficulties with speech and movement. Researchers estimate that FTD's account for approximately 2-5% of all dementia cases.

## Treatment

In most cases of progressive dementia there is no cure and no treatment options that stops its progression. But there are drug treatments that may temporarily improve the symptoms. The same medications used to treat Alzheimer's are among the drugs sometimes prescribed to help with symptoms of other types of dementia.

**Regardless of the type of dementia, people who have dementia and those who care for them can get information and support from the Alzheimer Society.**

**Further information on this topic can be found on the website:**

[www.alzheimer.ca](http://www.alzheimer.ca)

**or by visiting your local Alzheimer Society and requesting:**

Fact Sheet - Vascular Dementia

Fact Sheet - Frontotemporal Lobe Dementia

Fact Sheet - Lewy Body Dementia

Fact Sheet - Progression of Alzheimer's disease – Overview

Brochure - Treatment Options

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