

## Introduction

Alzheimer's disease is one type of a large group of disorders known as "dementias." Alzheimer's disease is a disease of the brain in which the progressive degeneration of brain cells causes symptoms of dementia such as memory loss, difficulty performing daily activities, and changes in judgement, reasoning, behaviour and emotions. These dementia symptoms are irreversible, which means that any loss of abilities cannot come back.

Other forms of dementia resemble Alzheimer's disease in that they also involve a progressive degeneration of brain cells that is currently irreversible. They include the dementia associated with vascular dementia, frontotemporal dementia, Creutzfeldt-Jakob disease, Lewy body dementia, Huntington disease and Parkinson's disease.

Sometimes a person may have different symptoms in the early stages of the disease, such as memory loss, behaviour changes, or difficulties with speech and movement. These symptoms may suggest a form of dementia other than Alzheimer's disease. A person should always seek a thorough medical assessment if any of these symptoms are present.

Regardless of the type of dementia, individuals are encouraged to obtain information and support from the Alzheimer Society.

## What is Lewy body dementia?

Lewy body dementia (LBD) is a form of dementia characterized by abnormal deposits of a protein called alpha-synuclein that form inside the brain's nerve cells. These deposits are called "Lewy bodies" after the scientist who first described them. The process that leads to the formation of Lewy bodies is unknown. Areas of the brain involved in thinking and movement are most affected in Lewy body dementia.

LBD can occur by itself, or together with Alzheimer's or Parkinson's disease.

Other names for LBD include: diffuse Lewy body disease, Lewy body disease, Lewy body dementia and Lewy body variant of Alzheimer's disease.

## How does Lewy body dementia affect the person?

A person with LBD may experience:

- Progressive loss of memory, language, reasoning and other higher mental functions such as calculation is common.
- Difficulty with short-term memory, finding the right word and sustaining a train of thought.
- Depression and anxiety.
- Visual spatial disorientation.
- Marked fluctuations in alertness.

Lewy body dementia may have a rapid progression. Memory difficulties may not be an early symptom, but can develop as LBD progresses. Visual hallucinations (seeing things which are not real) are common and can be worse during times of increased confusion. The visual hallucinations are often recurrent and typically consist of people, children or animals. People with LBD may also have psychotic and fixed false beliefs or make errors in perception, for example, seeing faces in a carpet pattern.

Some features of LBD can resemble Parkinson's disease. These include rigidity (stiffness of muscles), tremors (shaking), stooped posture and slow, shuffling movements. Sensitivity to medication, especially some sedatives, may exaggerate these symptoms. At present, it is believed that at least a number of people diagnosed with Parkinson's disease could well have LBD in addition to Parkinson's disease.

## How is Lewy body dementia assessed?

No single test can diagnose LBD. Doctors diagnose the disease through a process of eliminating other diseases and conditions that can cause similar symptoms. Assessment may include a neurological exam that emphasizes gait, posture and the degree of rigidity. Medical history, brain imaging (such as with an MRI), physical and neuropsychological testing can also be helpful in making a diagnosis of LBD.

## What are the risk factors for Lewy body dementia?

At present, there is no known cause of LBD and risk factors have not been identified. However, Lewy bodies contain a protein associated with Parkinson's disease and are often found in the brain of people with Parkinson's or Alzheimer's disease, suggesting that the three conditions may be linked in some way. If a family member has LBD, there may be an increased risk of developing the disease. LBD is more common in men than in women.

## **Is there treatment?**

At present, there is no cure for LBD. It is sometimes possible to use medications to treat symptoms such as those associated with Parkinson's disease, depression and unpleasant hallucinations. Cholinesterase inhibitors are medications used in treating Alzheimer's disease. They can improve alertness and cognition in some people and may reduce hallucinations and other distressing symptoms. However, due to the multiple features of LBD and Parkinson's disease symptoms, treatment of one symptom may be achieved by worsening another. One strategy to avoid or prevent this is to treat symptoms in order of their severity.

Behavioural therapeutic strategies are also helping people living with the disease. Therapeutic techniques like physical activity and music are being used as viable and useful treatments. Research shows that the quality of life of people with dementia and of their caregivers is significantly improved by activities that emphasize their strengths and abilities. By understanding the person's personality, life experiences, support systems and ways of coping, a person-centred approach to care can be created that preserves and improves quality of life.

## **For more information:**

Visit the Alzheimer Society's website at [www.alzheimer.ca](http://www.alzheimer.ca) or contact your local Alzheimer Society. You can find your local Alzheimer Society by visiting [www.alzheimer.ca/helpnearyou](http://www.alzheimer.ca/helpnearyou)

## **More information can be obtained from the following:**

- Lewy Body Dementia Association, Inc.: [www.lbda.org](http://www.lbda.org).
- Mayo Clinic: [www.mayoclinic.org/diseases-conditions/lewy-body-dementia/home/ovc-20200344](http://www.mayoclinic.org/diseases-conditions/lewy-body-dementia/home/ovc-20200344)

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## Alzheimer *Society*

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