

## Related Dementia - Lewy Body Dementia

### Introduction

Dementia is a syndrome consisting of a number of symptoms that include loss of memory, judgment and reasoning, and changes in mood, behaviour and communication abilities. These symptoms may affect a person's ability to function at work, in social relationships or in day-to-day activities. Sometimes symptoms of dementia can be caused by conditions that may be treatable, such as depression, thyroid disease, infections or drug interactions. However, if the symptoms are not treatable and progress over time, they may be due to damage to the nerve cells in the brain.

Alzheimer's disease is the most common form of dementia. It is a disease of the brain, characterized by deterioration of thinking ability and of memory, caused by the progressive death of brain cells. Alzheimer's disease accounts for approximately 64% of all dementias diagnosed in Canada. The features of Alzheimer's disease include a gradual onset and continuing decline of memory, as well as changes in judgment or reasoning, and ability to perform familiar tasks. Other dementias include Vascular Dementia, Lewy body Dementia, Frontotemporal Dementia and Creutzfeldt-Jakob Disease.

Sometimes a person may have symptoms such as sudden onset of memory loss, behaviour changes, or difficulties with speech and movement. These symptoms may suggest a dementia other than Alzheimer's disease. Lewy body Dementia is one of these dementias. A person should 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 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.

Lewy body Dementia can occur by itself, or together with Alzheimer's disease or Parkinson's. It accounts for 15-20% of all dementias.

**Other names for Lewy body Dementia include:** Diffuse Lewy body Disease, Cortical Lewy body Disease, Lewy body Disease, Senile Dementia of Lewy Type, Dementia with Lewy bodies and Lewy body variant of Alzheimer's disease.

### How does Lewy body Dementia affect the person?

In Lewy body Dementia, a person may experience symptoms similar to those of both Parkinson's and Alzheimer's disease. A progressive loss of memory, language, reasoning and other higher mental functions such as calculation of figures is common. The person may have difficulty with short-term memory, finding the right word and sustaining a train of thought. An individual may also experience depression and anxiety. Marked fluctuations in alertness may also be experienced.

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Lewy body Dementia usually has a rapid progression. Memory difficulties may not be an early symptom, but can develop as Lewy body Dementia 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 the disease may also make errors in perception, for example, seeing faces in a carpet pattern.

Some features of Lewy body Dementia can resemble Parkinson's. These include rigidity (stiffness of muscles), tremors (shaking), stooped posture and slow, shuffling movements. Sensitivity to medication, especially some sedatives, may exaggerate these symptoms.

### **How is Lewy body Dementia assessed?**

No single test can diagnose Lewy body Dementia. 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.

### **What are the risk factors for Lewy body Dementia?**

At present, there is no known cause of Lewy body Dementia and risk factors have not been identified. However, Lewy bodies contain a protein associated with Parkinson's and are often found in the brains 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 the disease, there may be an increased risk of developing the disease. Lewy body Dementia is more common in men than in women.

### **Is there treatment?**

At present, there is no cure for Lewy body Dementia. It is sometimes possible to use medications to treat symptoms such as those associated with Parkinson's, 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 Lewy body Dementia and Parkinson 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.

### **For more information:**

- Visit the Alzheimer Society's Web site at [www.alzheimer.ca](http://www.alzheimer.ca) or call your local Alzheimer Society.
- Lewy Body Dementia Association Inc.: [www.lewybodydementia.org](http://www.lewybodydementia.org).
- Mayo Clinic: <http://www.mayoclinic.com/health/lewy-body-dementia/DS00795>

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