

Dementia with Lewy Bodies (DLB)

A topic in the Alzheimer's Association series on understanding dementia.

About Dementia

Dementia is a condition in which a person has significant difficulty with daily functioning because of problems with thinking and memory. Dementia is not a single disease. It's an overall term — like “heart disease” — that covers a wide range of specific medical conditions, including Alzheimer's disease. Disorders grouped under the general term “dementia” are caused by abnormal brain changes. These changes trigger a decline in thinking skills, also known as cognitive abilities, severe enough to impair daily life and independent function. They also affect behavior, feelings and relationships.

Brain changes that cause dementia may be temporary, but they are most often permanent and worsen over time, leading to increasing disability and a shortened lifespan. Survival can vary widely, depending on such factors as the cause of dementia, age at diagnosis and coexisting health conditions.

Dementia with Lewy Bodies (DLB)

Dementia with Lewy bodies (DLB) is a type of dementia that leads to a progressive decline in thinking, reasoning and independent function because of abnormal microscopic deposits that gradually destroy certain brain cells. These deposits consist chiefly of alpha-synuclein, a protein that's found widely in the brain but whose normal function isn't yet known. The deposits are called “Lewy bodies” after Frederick H. Lewy, M.D., the neurologist who discovered them while working in Dr. Alois Alzheimer's laboratory during the early 1900s.

Lewy bodies are also found in several other brain disorders, including Alzheimer's disease and Parkinson's disease dementia. Many people with Parkinson's eventually develop problems with thinking and reasoning, and many people with DLB experience movement symptoms, such as hunched posture, rigid muscles, a shuffling walk and trouble initiating movement.

This overlap in symptoms and other evidence suggest that dementia with Lewy bodies, Parkinson's disease and Parkinson's disease dementia may be linked to the same underlying abnormalities in how the brain processes alpha-synuclein. Many people with both DLB and Parkinson's dementia also have plaques and tangles — hallmark brain changes linked to Alzheimer's disease.

Prevalence

Most experts estimate that DLB is the third most common cause of dementia after Alzheimer's disease and vascular dementia, accounting for 10 to 25 percent of cases.

Symptoms

Hallmark DLB symptoms include changes in thinking and reasoning; confusion and alertness that varies significantly from one time of day to another or from one day to the next; Parkinson's symptoms, such as a hunched posture, balance problems, rigid muscles; visual hallucinations; delusions; trouble interpreting visual information; a problem with acting out dreams known as rapid eye movement (REM); sleep disorder; malfunctions of the “automatic” (autonomic) nervous system; and memory loss that may be less prominent than in Alzheimer's.

Diagnosis

There is no single test — or any combination of tests — that can conclusively diagnose DLB during life. Today, DLB is a “clinical” diagnosis representing a doctor's best professional judgment about the reason for a person's symptoms.

Many experts now believe that DLB and Parkinson's disease dementia are two different expressions of the same underlying problems with brain processing of alpha-synuclein. But most experts recommend continuing to diagnose DLB and Parkinson's dementia as separate disorders.

Guidelines for diagnosing DLB and Parkinson's disease dementia are:

- **The diagnosis is DLB** when dementia symptoms consistent with DLB develop first, when both dementia symptoms and movement symptoms are present at the time of diagnosis, or when movement symptoms develop within a year after DLB diagnosis.
- **The diagnosis is Parkinson's disease dementia** when a person is originally diagnosed with Parkinson's based on movement symptoms and dementia symptoms don't appear until a year or more later.

Since Lewy bodies tend to coexist with Alzheimer's brain changes, it may sometimes be hard to distinguish DLB from Alzheimer's disease, especially in the early stages. As in other types of dementia, biomarkers tests — tests that measure changes in the body associated with certain diseases and illnesses — are needed to help doctors be more certain that an individual has DLB.

Causes and Risk Factors

Researchers have not yet identified any specific causes of DLB. Most people diagnosed with DLB have no family history of the disorder, and no genes linked to DLB have been conclusively identified.

Outcomes

Like other types of dementia that destroy brain cells, DLB gets worse over time and shortens lifespan.

Treatment

There are no treatments that can slow or stop the brain cell damage caused by DLB. Current strategies focus on helping symptoms. If your treatment plan includes medications, it's important to work closely with your physician to identify the drugs that work best for you and the most effective doses.

Cholinesterase inhibitors — drugs that are the current mainstay for treating thinking changes in Alzheimer's — may also help DLB symptoms.

Antipsychotics — a drug category sometimes prescribed for behavioral symptoms that can occur in Alzheimer's — should be used with extreme caution because they may cause serious side effects in as many as 50 percent of those with DLB. Side effects may include sudden changes in consciousness, impaired swallowing, acute confusion, episodes of delusions or hallucinations, or appearance or worsening of Parkinson's symptoms.

Depression is common in both DLB and Parkinson's disease dementia, and may be treated with a type of antidepressant called selective serotonin reuptake inhibitors (SSRIs). REM disorder may be treated with clonazepam.

Learn More

For more information on dementia with Lewy bodies and other topics in the Alzheimer's Association series on understanding dementia, visit www.alz.org, or call our toll-free, 24/7 Helpline at 800.272.3900.

The Alzheimer's Association is the world's leading voluntary health organization in Alzheimer's care, support and research.