

- Key differences vs. Alzheimer's
 - Vascular dementia
 - Fronto-temporal dementia (FTD)
 - Lewy body dementia (DLB)
 - Parkinson's disease dementia (PDD)
- Why a specific diagnosis matters

Purpose

Differentiate four irreversible dementias from Alzheimer's disease. Explain why naming the specific type matters.

Key differences vs. Alzheimer's

Vascular dementia

- **Cause:** Brain injury from poor blood flow, often after a large stroke or many small infarcts. Alzheimer's is not ischemic.
- **Course:** Decline often occurs in steps with plateaus, not the steady slope seen in Alzheimer's.
- **Profile and testing:** Early problems in planning and attention; memory may be less prominent at first. MRI commonly shows vascular changes.

Fronto-temporal dementia (FTD)

- **Onset and first signs:** More common under 65. Early changes are behavior or language, not memory.
- **Subtypes:** Behavioral variant and primary progressive aphasia are core forms; motor variants can occur.
- **Genetics and pathology:** Familial cases are relatively frequent and pathology centers on frontal and temporal lobes with tau or related proteins.

Lewy body dementia (DLB)

- **Core features:** Fluctuating attention, well-formed visual hallucinations, and REM sleep behavior disorder appear early. These are not typical early Alzheimer's features.
- **Motor timing:** Parkinsonian signs appear around the time dementia emerges, unlike Alzheimer's where motor signs are not central.
- **Medication risk:** Marked sensitivity to typical antipsychotics and potential worsening of parkinsonism with some dementia drugs. Safety profile differs from Alzheimer's.

Parkinson's disease dementia (PDD)

- **Sequence:** Parkinson's motor symptoms precede dementia by years. In Alzheimer's, cognitive decline comes first.
- **Phenotype:** More visual hallucinations and fluctuating cognition, plus high fall risk.
- **Biology:** Lewy bodies are implicated, linking PDD more closely to DLB than to typical Alzheimer's pathology.

Why a specific diagnosis matters

- **Treatment and safety:** DLB patients can have severe reactions to older antipsychotics; some drugs that are acceptable in Alzheimer's are unsafe here. A label of "dementia" alone can lead to harmful prescribing.
 - **Targeted management:** Vascular dementia care prioritizes control of blood pressure, cholesterol, diabetes, and stroke prevention. That focus differs from Alzheimer's symptomatic therapy.
 - **Prognosis and planning:** Different subtypes progress and present differently, which alters counseling, safety planning, and caregiver education.
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