

1. What is Dementia?

Definition

- **Dementia** is a clinical syndrome characterized by a decline in cognitive abilities—such as memory, reasoning, and communication—severe enough to interfere with daily functioning.
- It is not a single disease but rather an umbrella term for multiple disorders that affect brain health.
- While age increases risk, dementia is **not considered a normal part of aging**.

Types of Dementia

- **Alzheimer's disease** – The most common form, accounting for 60–70% of cases. It is driven by abnormal protein deposits (amyloid plaques and tau tangles) that damage brain cells.
 - **Vascular dementia** – Caused by impaired blood flow to the brain, often following strokes or small vessel disease.
 - **Lewy body dementia** – Linked to deposits of abnormal proteins (Lewy bodies) in nerve cells, producing both cognitive decline and movement difficulties.
 - **Frontotemporal dementia (FTD)** – Results from degeneration of the frontal and temporal lobes, leading to changes in personality, behavior, and language.
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2. What is Alzheimer's Disease?

Brain Changes

- Alzheimer's disease is marked by two hallmark abnormalities:
 - **Amyloid plaques**: sticky protein clumps that accumulate between nerve cells.
 - **Neurofibrillary tangles**: twisted strands of tau protein inside neurons.
- These changes disrupt communication between brain cells, cause cell death, and lead to shrinkage of critical areas such as the hippocampus (responsible for memory).

Symptoms

- **Early stage**: Subtle memory lapses, misplacing items, difficulty finding words.
- **Middle stage**: Increasing confusion, trouble managing daily tasks, personality or mood changes.

- **Late stage:** Severe memory loss, inability to recognize loved ones, loss of independence, and complete reliance on caregivers.

Differences from Normal Aging

- **Normal aging:** Occasional forgetfulness (e.g., misplacing keys but later recalling where they are).
 - **Alzheimer's disease:** Persistent memory loss, inability to retrace steps, forgetting familiar people or major life events.
 - Normal aging does not typically cause **disorientation, profound language difficulties, or marked personality changes.**
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3. Signs & Symptoms of Dementia

Memory

- Frequent forgetfulness of recent events or conversations.
- Difficulty recalling names of familiar people or places.
- Repetition of questions or stories within short timeframes.

Communication

- Trouble finding appropriate words or following conversations.
- Difficulty reading, writing, or understanding language.
- Losing track of thoughts mid-sentence.

Behavior Changes

- Noticeable personality shifts, such as irritability, suspicion, or withdrawal.
- Mood disturbances including depression or anxiety.
- Wandering, agitation, or socially inappropriate actions.