Alzheimer's and Other Dementias

Region VII EMS System

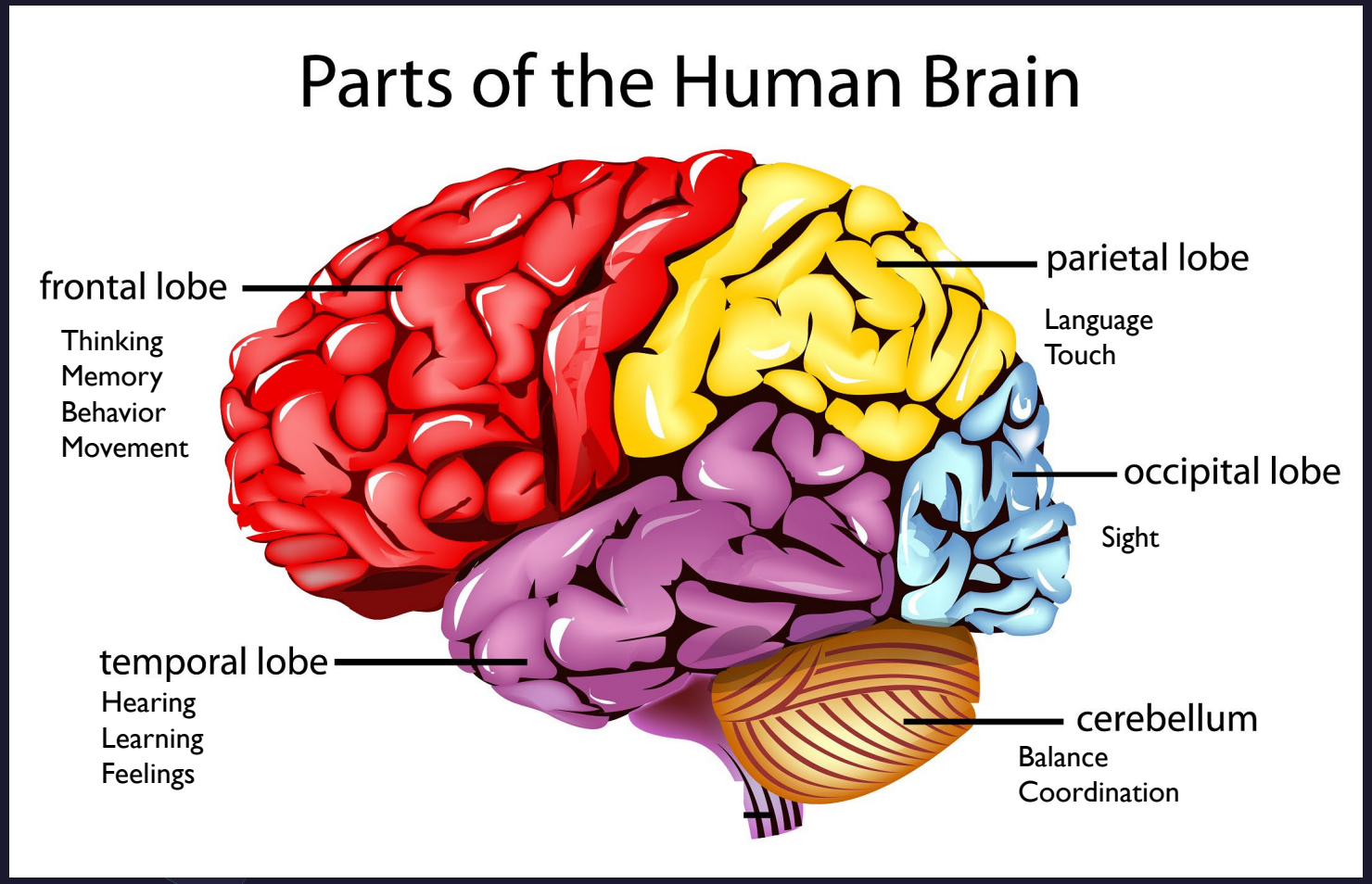
2023 updated

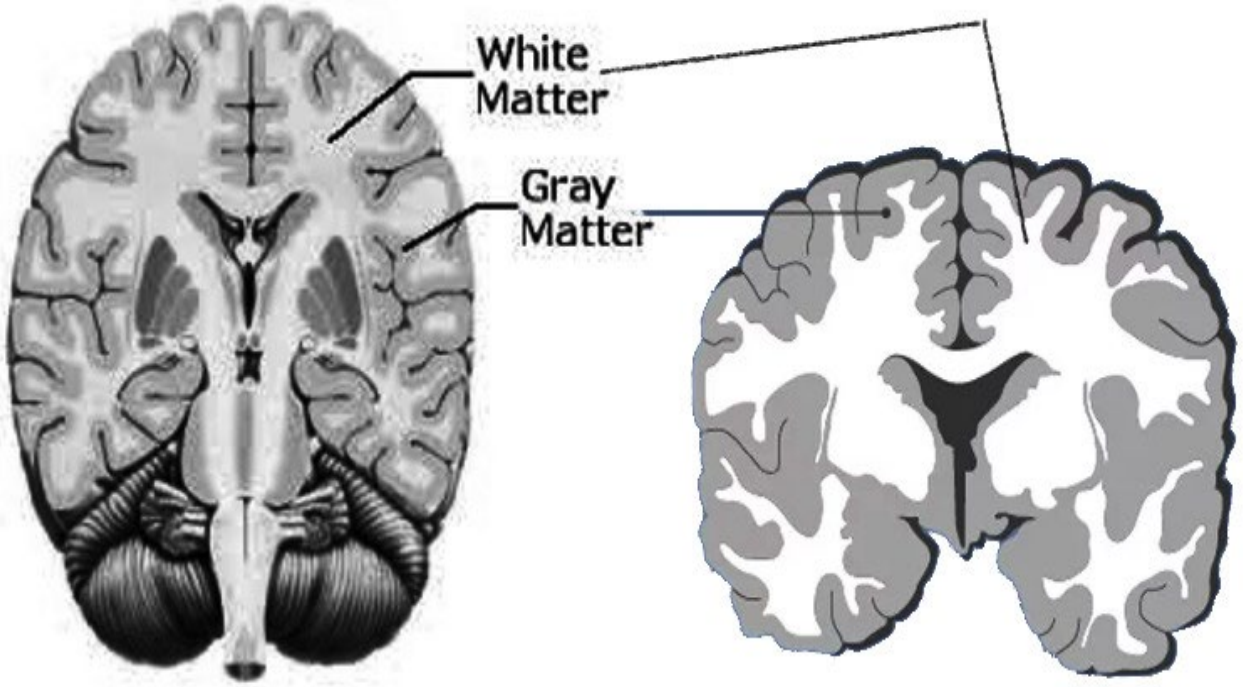
Objectives

- Define the different dementias and Alzheimer's Disease (AD)
- Discuss causes and signs/symptoms of AD and other dementias
- Discuss the approach and communication skills for dealing with a patient with AD or other dementias

Brain and Brain Anatomy

The brain is a complex organ that controls thought, memory, emotion, touch, motor skills, vision, breathing, temperature, hunger and every process that regulates our body.





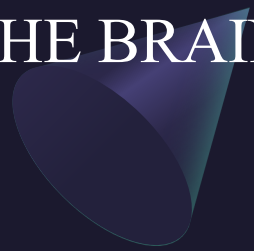
Gray and white matter are two different regions of the central nervous system. In the brain, gray matter refers to the darker, outer portion, while white matter describes the lighter, inner section underneath. The Gray matter primarily consists of nerve cells, while white matter is mostly made of axons that transmit signals.

What is Dementia?

Definition

Dementia is a term used to describe a group of symptoms affecting memory, thinking and social abilities severely enough to interfere with daily life.

- PATIENTS WITH DEMENTIA ARE CONFUSED AND DISORIENTED
- DEMENTIA IS NOT A NORMAL CHANGE OF AGING.
- DEMENTIA IS A SYMPTOM, NOT A DISEASE
- MENTAL DISORDERS CAUSED BY CHANGES IN THE BRAIN.



Dementia

COGNITIVE CHANGES

- Memory loss, noticed by someone else
- Difficulty communicating or finding words
- Difficulty with visual and spatial abilities Difficulty reasoning or problem-solving
- Difficulty handling complex tasks
- Difficulty with planning and organizing
- Difficulty with coordination and motor functions

PSYCHOLOGICAL CHANGES

- Personality changes
- Depression
- Anxiety
- Paranoia
- Agitation
- Hallucinations
- Inappropriate behavior

Types of Dementia

REVERSIBLE

Potential Causes

Vitamin Deficiency

Heavy Metal Poisoning

Depression

IRREVERSIBLE

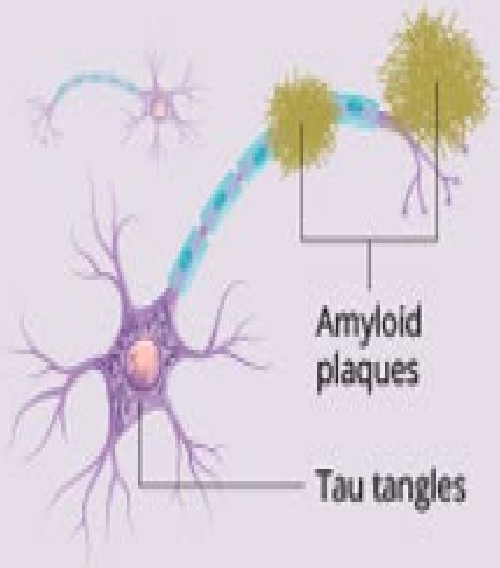
Alzheimer's Disease

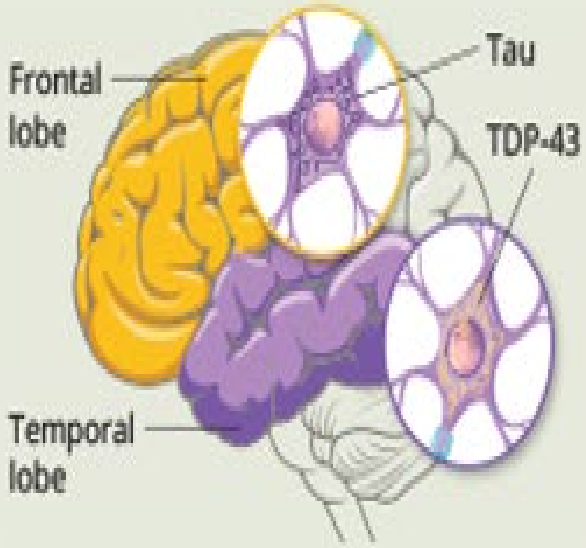
Vascular Dementia

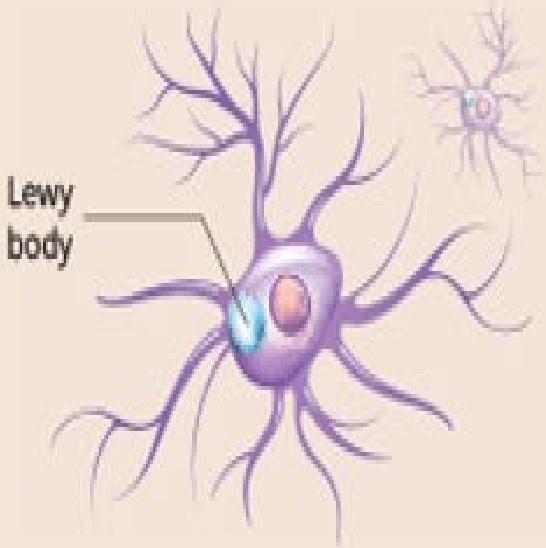
Lewy Body Dementia

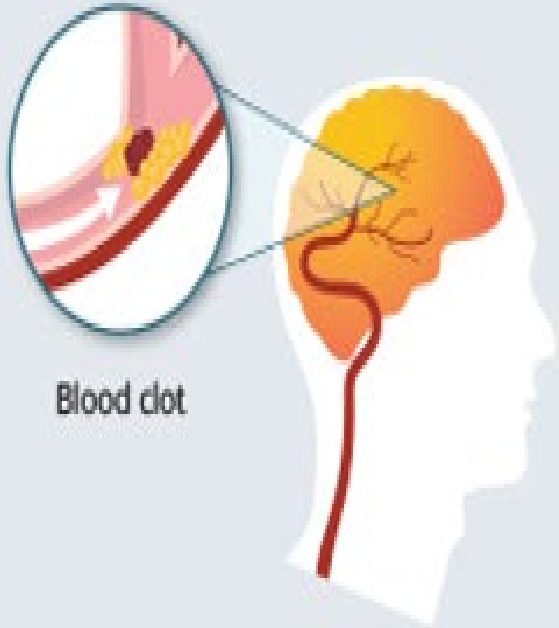
Frontotemporal Dementia

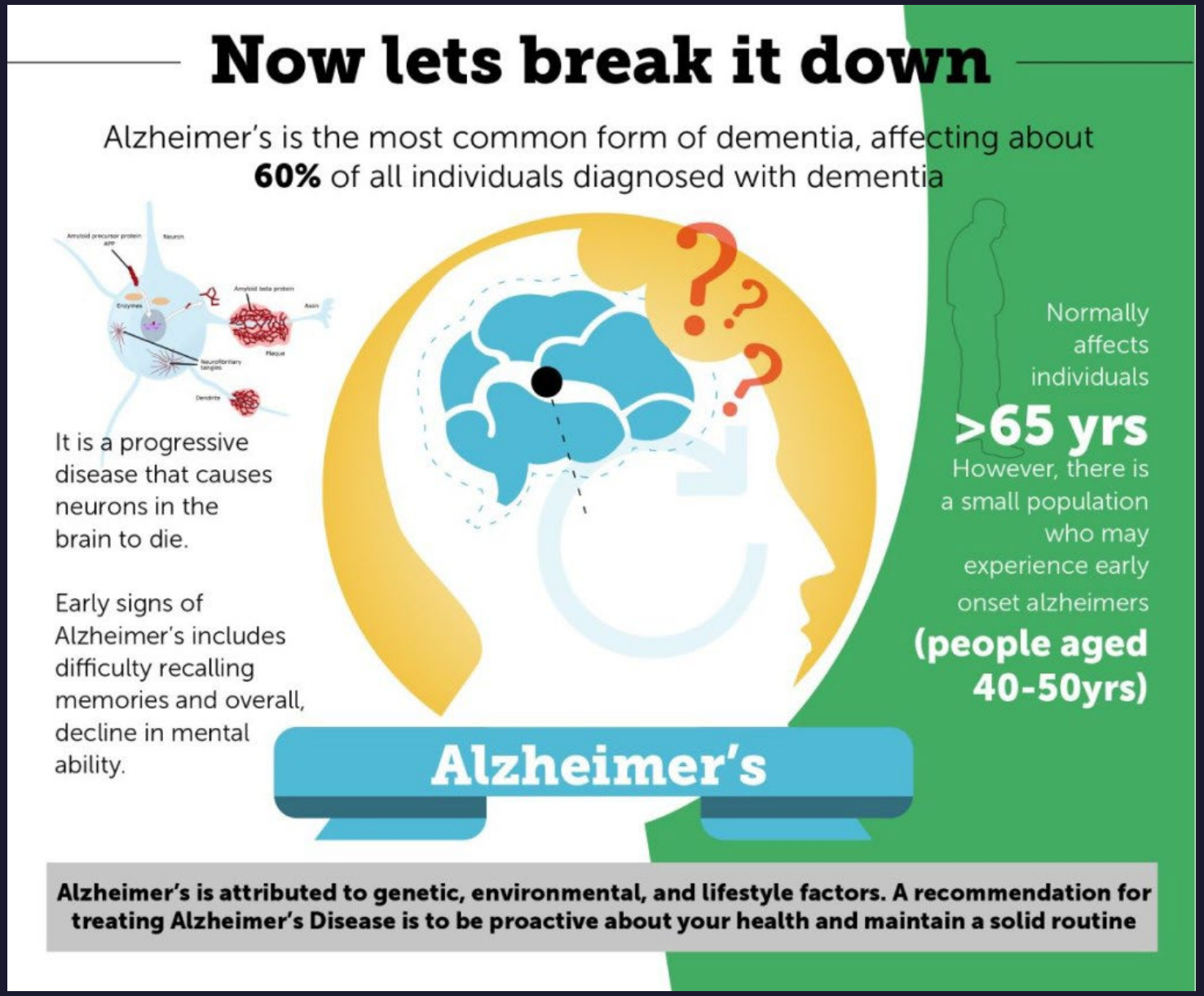
Alzheimer's Disease	Frontotemporal Dementia	Lewy Body Dementia	Vascular Dementia
What Is Happening in the Brain?*			
Abnormal deposits of proteins form amyloid plaques and tau tangles throughout the brain.	Abnormal amounts or forms of tau and TDP-43 proteins accumulate inside neurons in the frontal and temporal lobes.	Abnormal deposits of the alpha-synuclein protein, called "Lewy bodies," affect the brain's chemical messengers.	Conditions, such as blood clots, disrupt blood flow in the brain.







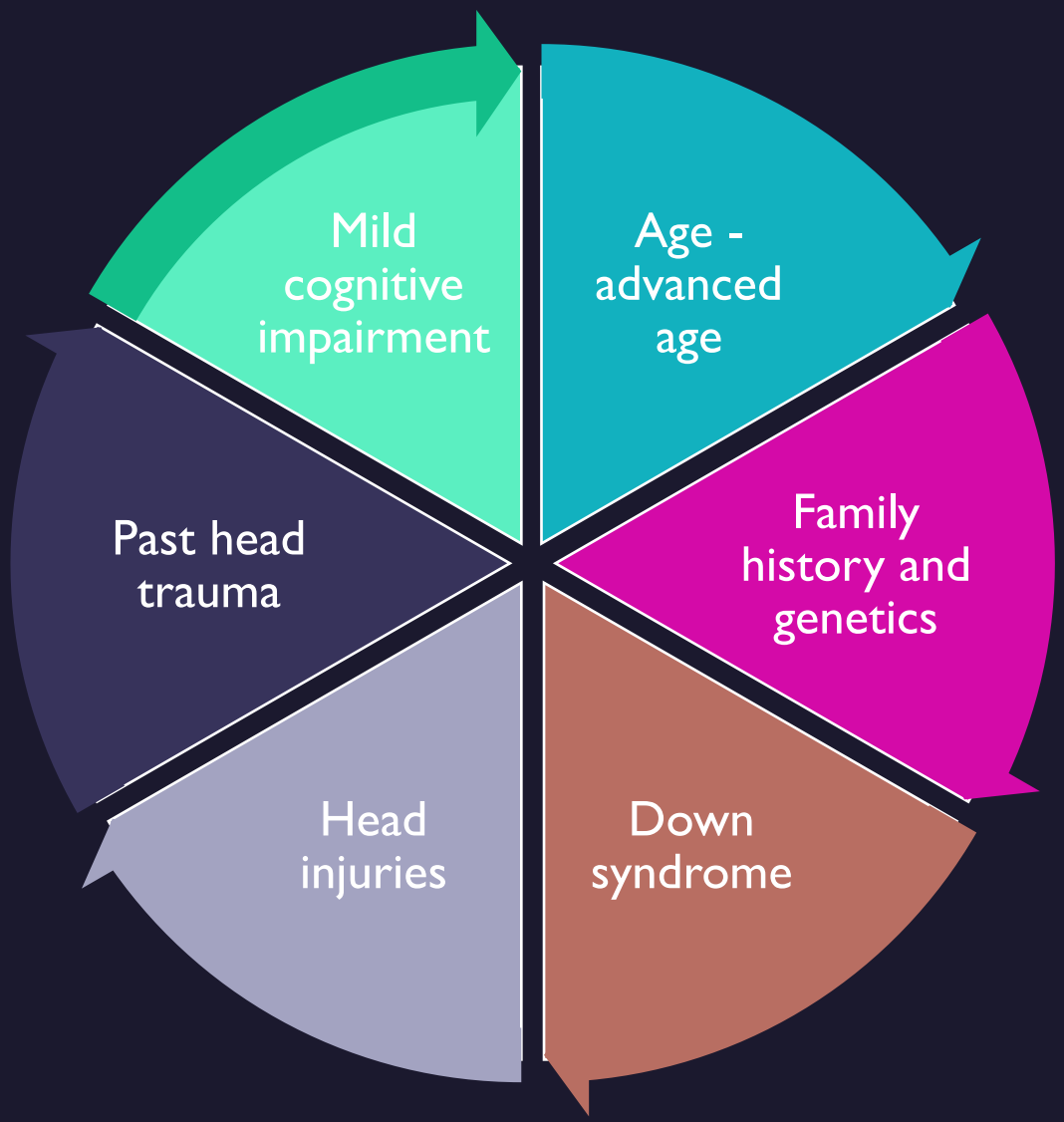




Alzheimer's Disease

Alzheimer's is a complex progressive disease and can be contributed to multiple factors. Alzheimer's can be attributed to genetic, environmental and lifestyle factors

Alzheimer’s Risk Factors



Scientists don't yet fully understand what causes Alzheimer's disease in most people. The causes probably include a combination of age-related changes in the brain, along with genetic, environmental, and lifestyle factors. The items listed in the graph are other things that can increases ones risk.

Alzheimer's

Reducing Risk Factors

- Adopt a Brain and Heart Healthy Diet
- Regular exercise
- Blood pressure control
- Remain Socially Active
- Remain Mentally Active

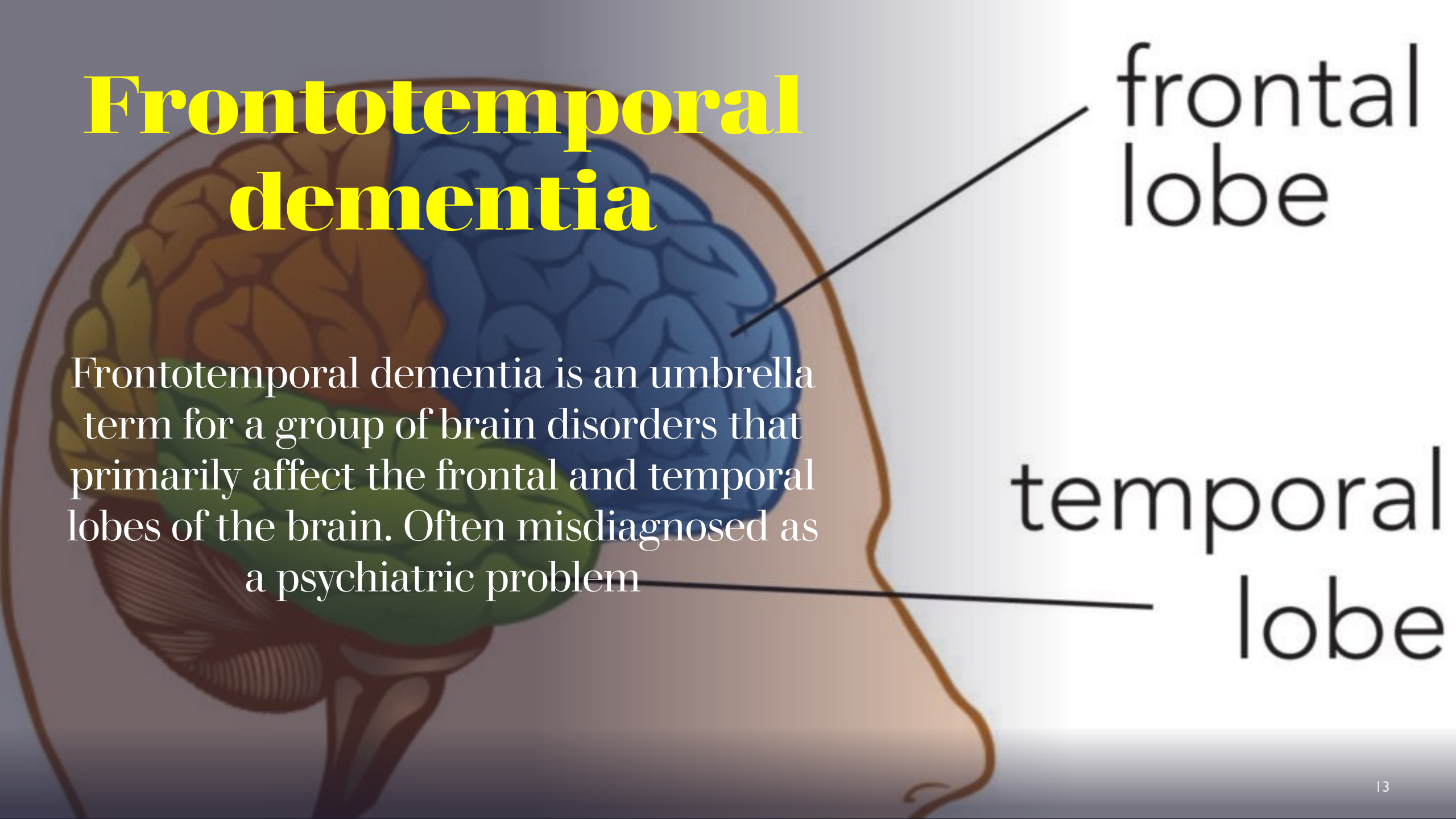
Alzheimer's Prevention

No way to prevent AD

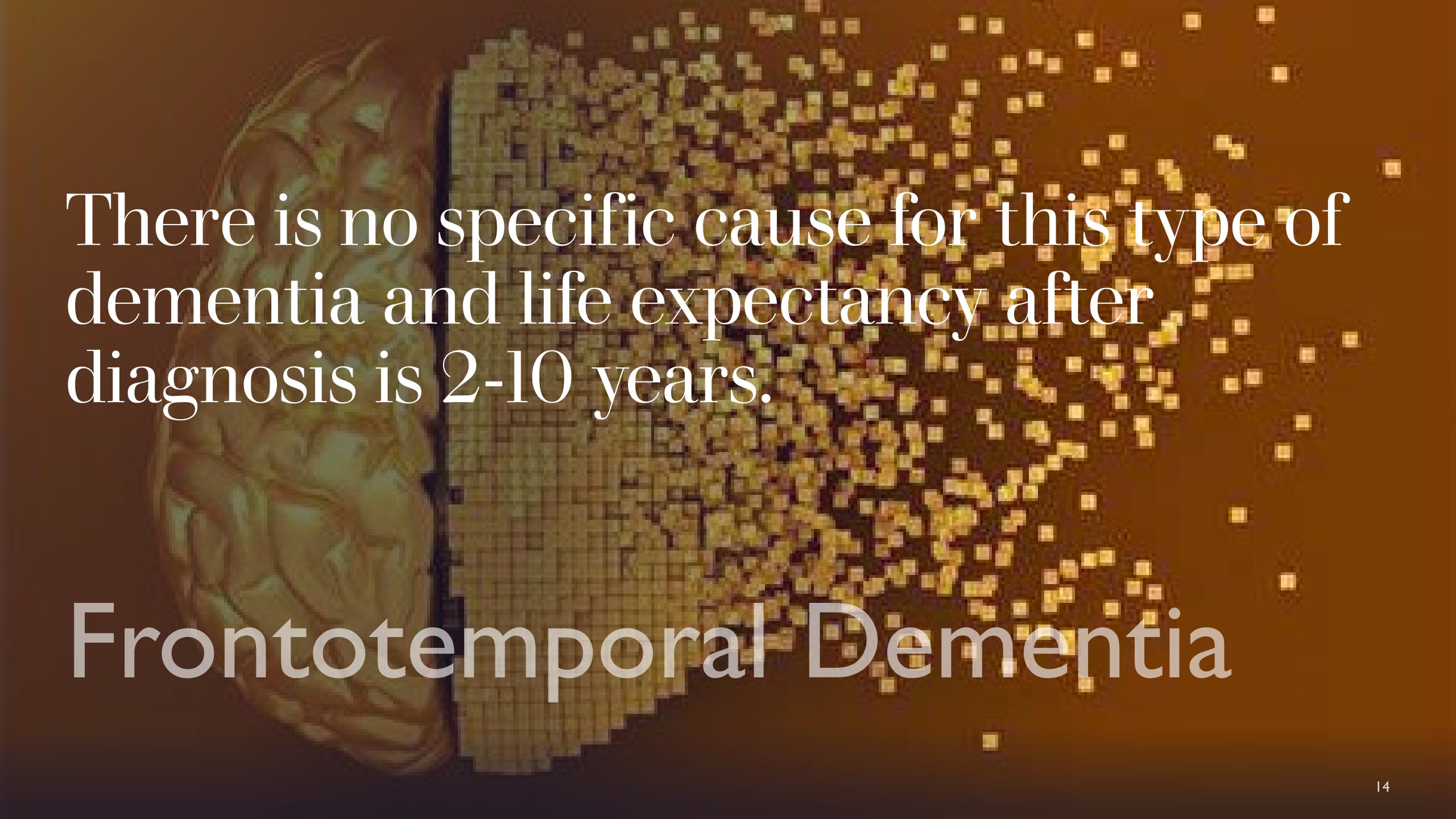
No Vaccination

There may be ways to reduce risk factors

Frontotemporal dementia



Frontotemporal dementia is an umbrella term for a group of brain disorders that primarily affect the frontal and temporal lobes of the brain. Often misdiagnosed as a psychiatric problem



There is no specific cause for this type of dementia and life expectancy after diagnosis is 2-10 years.

Frontotemporal Dementia

Frontotemporal dementia

Behavioral changes

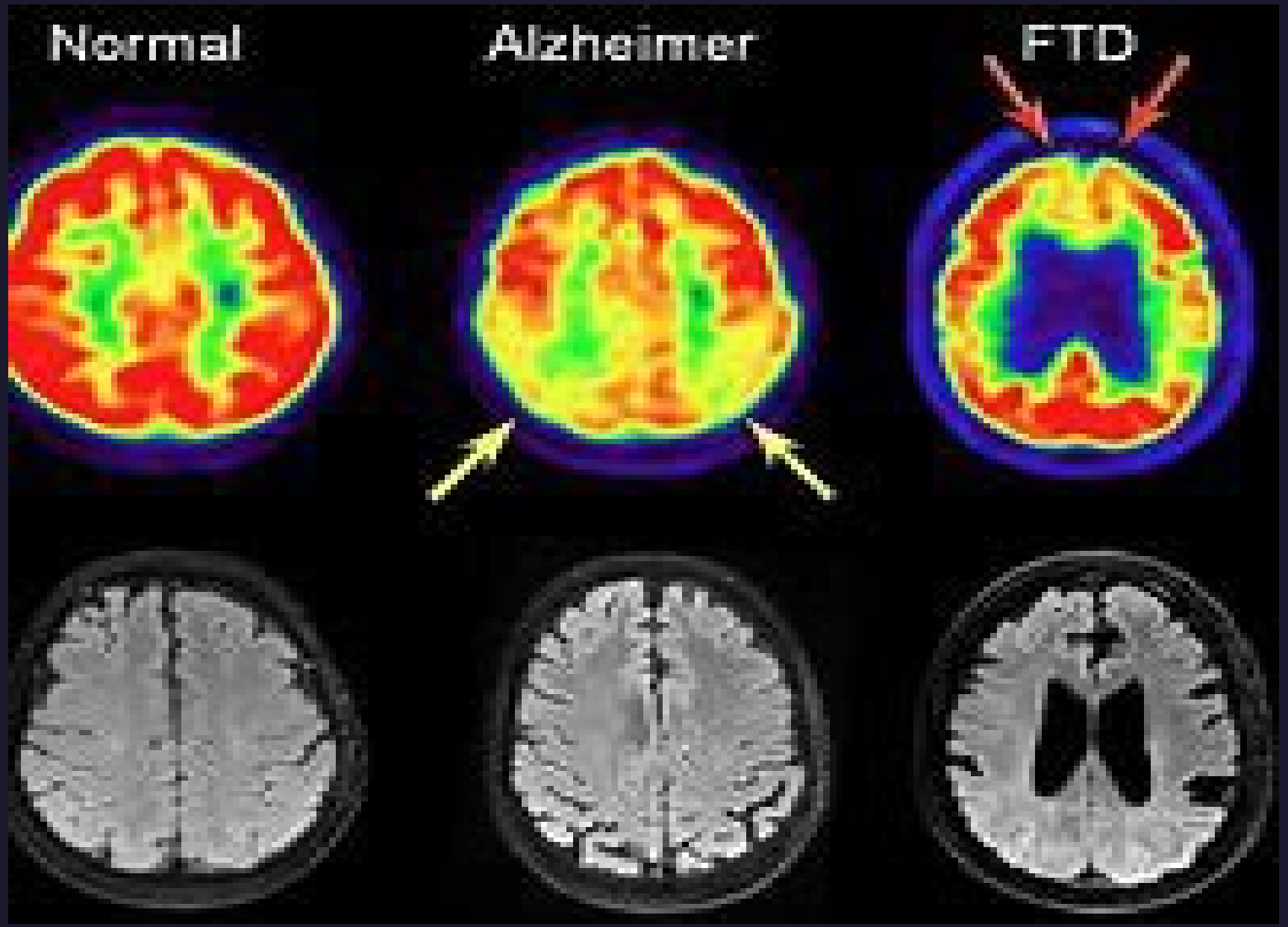
- Lack of judgment
- Loss of inhibition
- Lack of interest
- A decline in personal hygiene
- Changes in eating habits
- Eating inedible objects
- Compulsively wanting to put things in the mouth

Speech and Language Problems

- No longer knowing word meanings
- Having hesitant speech
- Making mistakes in sentence construction

Motor disorders

- Tremor
- Rigidity
- Muscle spasms/ twitches
- Poor coordination
- Difficulty swallowing
- Muscle weakness
- Inappropriate laughing or crying
- Falls or walking problems



The difference in appearance between the normal brain versus an Alzheimer's and Frontotemporal dementia brain on imaging is impressive.

Lewy Body Dementia

Is a progressive disease, meaning symptoms start slowly and worsen over time.

- Although younger people can have LBD, it typically begins at age 50 or older.
- People with LBD live on average five to eight years — but may live as few as two years or as long as 20 years — from the time of diagnosis to death. How fast symptoms develop, and change varies depending on the person’s overall health, age, and level of symptoms.

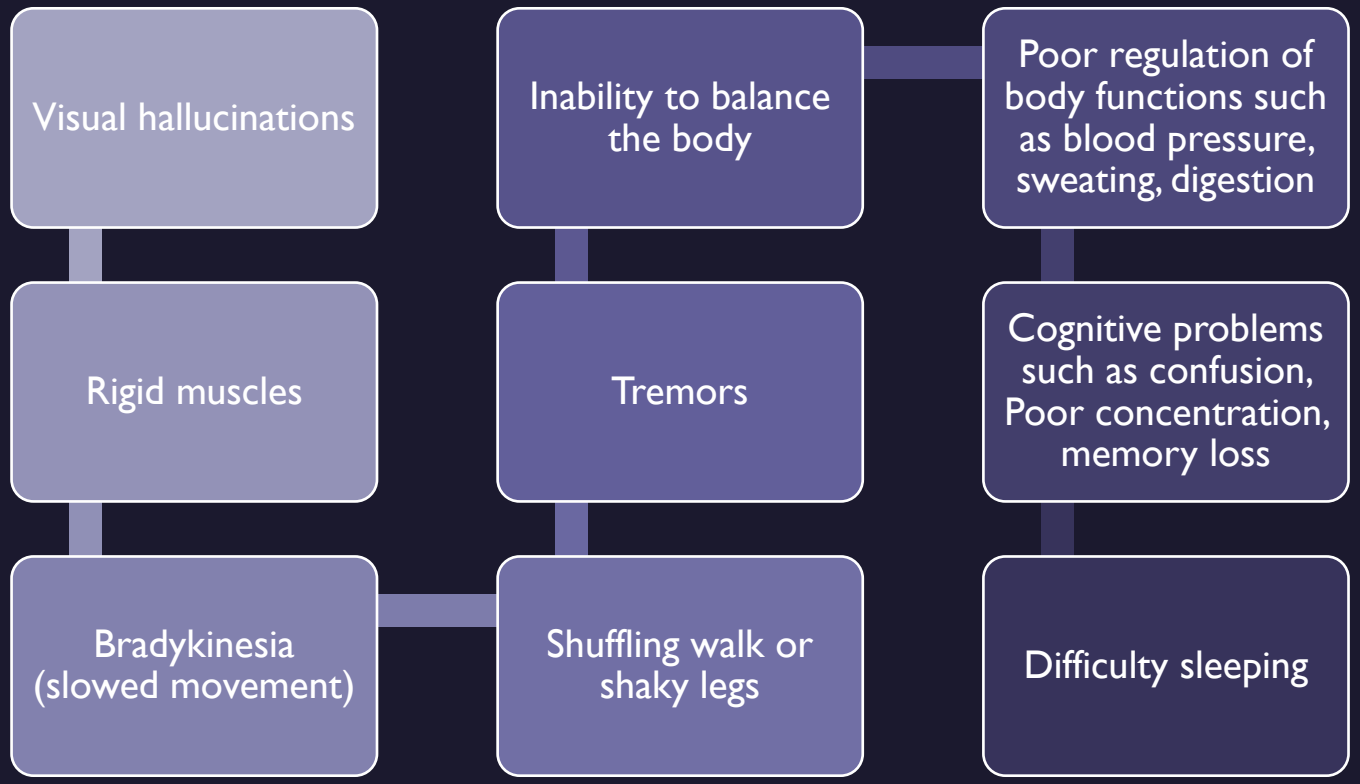
Lewy body dementia characterized by accumulation of proteins, called Lewy bodies, in the nerve cells of brain. These are found to mainly affect areas involved in thinking, memory, and movement

The risk factors include:

- Parkinson's disease
- Age- people above 60 years are at higher risk
- Gender- men are more likely to be affected
- Family history- including a family history of Parkinson's disease

Lewy Body Dementia

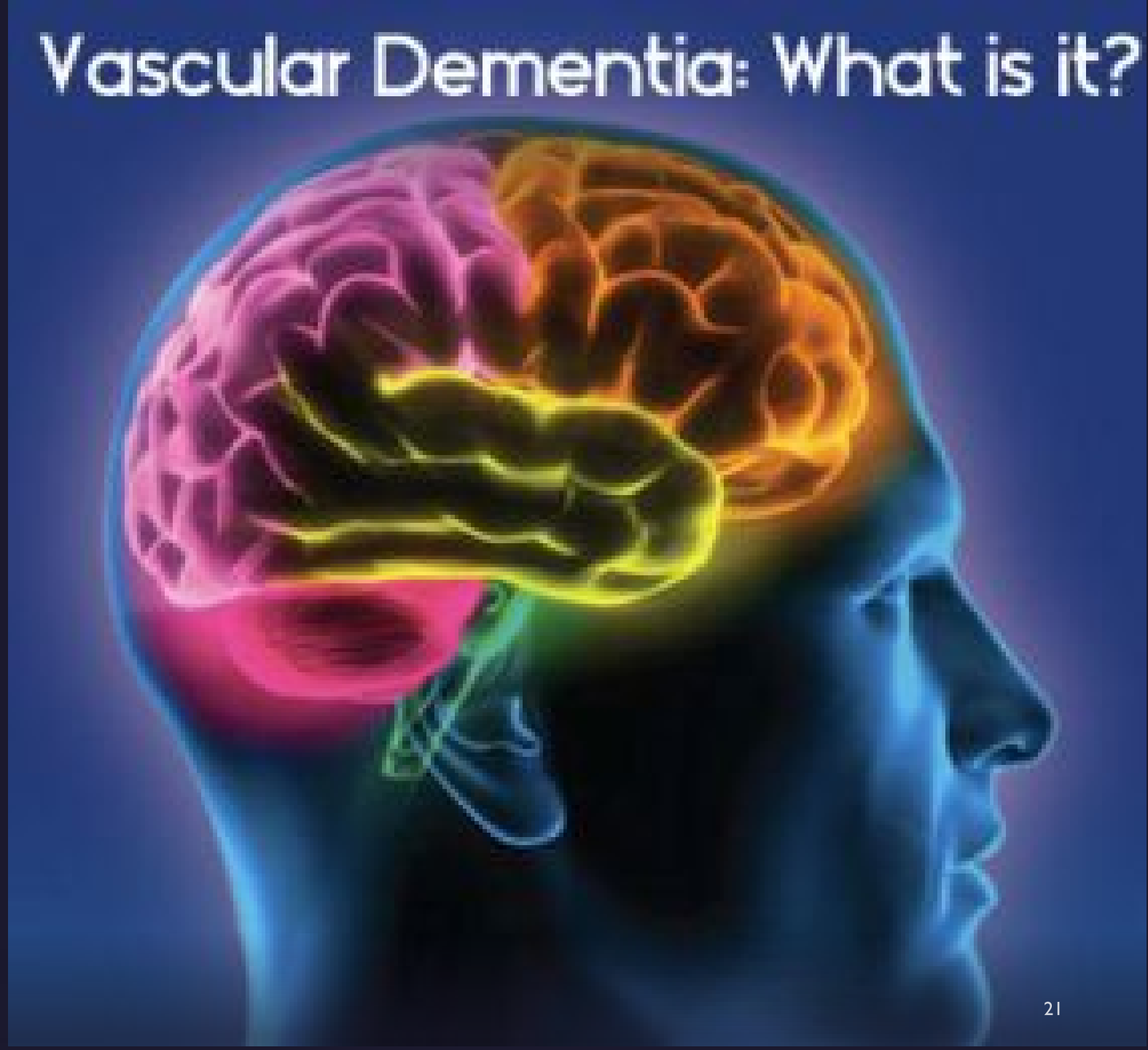
Symptoms of Lewy body dementia noted are mainly related to thinking, memory, and movement. The other symptoms include:



How can you prevent Levy Body Dementia ?

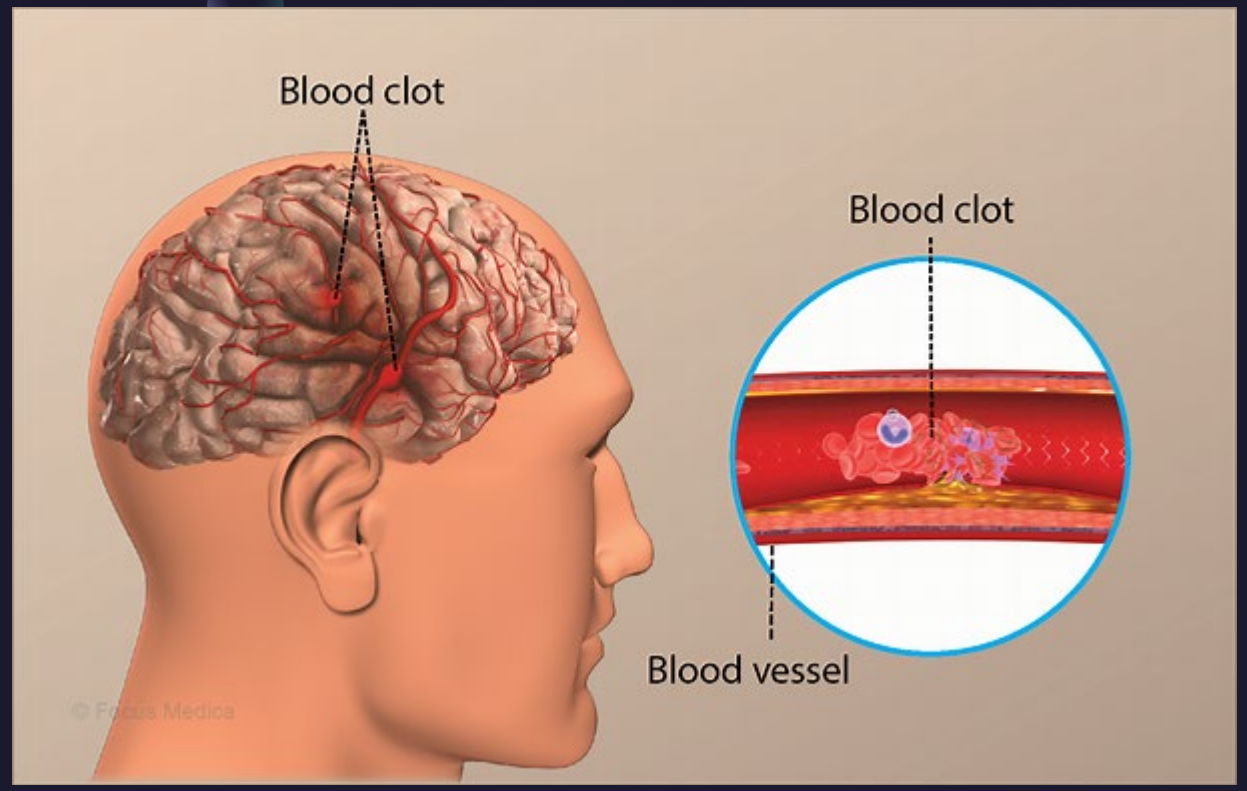
Vascular Dementia

Vascular dementia is a general term describing problems with reasoning, planning, judgment, memory and other thought processes caused by brain damage from impaired blood flow to your brain.



Vascular Dementia

When brain does not get enough blood and oxygen supply portion of the brain is damaged leading to vascular dementia. The conditions/causes which may lead to this are as follows:



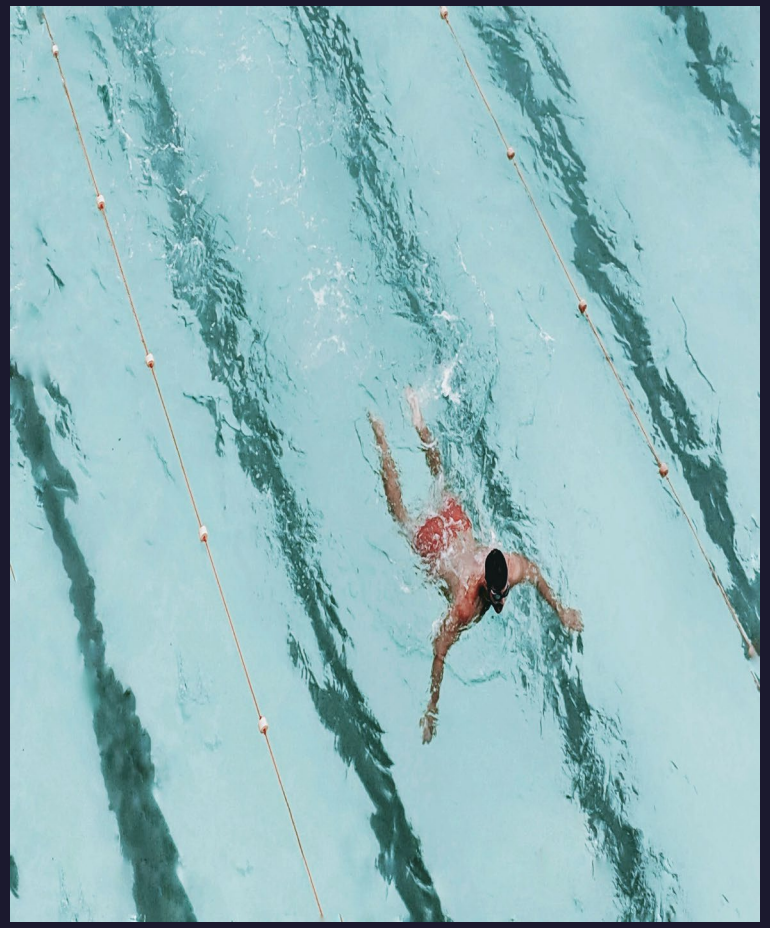
- Stroke
- Cardiovascular diseases
- Aneurysm in brain
- Diabetes
- High blood pressure
- Smoking
- High cholesterol

Vascular Dementia

The symptoms include:

- Short-term memory loss
- Getting lost in known surroundings
- Reduced concentration and planning
- Trouble with finance management
- Cannot follow instructions
- Inability to control bladder or bowel
- Delusions and hallucinations

Vascular Dementia Prevention



What you may see with patients who have AD or other Dementias

Wandering

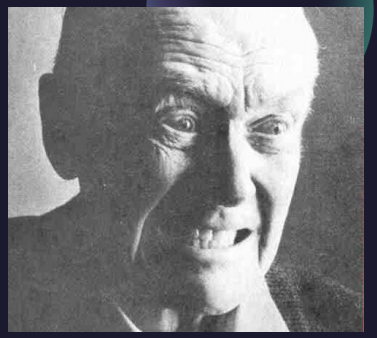
Some patients wander – You may respond to this type of call

Hoarding

- May gather items and hide them
- May accuse people of stealing items they can't find

Sundowning

- Increase in behavior problems as the sun sets
- May also occur when the patient is tired or afraid of the dark



Catastrophic Reaction

Overreaction to a situation by becoming very agitated angry or emotional

DELUSIONS AND HALLUCINATIONS

DELUSIONS

A FALSE BELIEF

HALLUCINATIONS

SENSING SOMETHING THAT IS NOT THERE

Reality Orientation

Is a therapeutic technique used with people who have dementia or are otherwise disoriented.

The approach is to weave details of their surroundings into the conversation, including where they are, who they are with, and what day it is.

Multiple studies have demonstrated that the use of reality orientation has improved cognitive functioning for people living with dementia when compared to control groups who did not receive it.

Approach/Communication

VERBAL COMMUNICATION

- USE SHORT AND SIMPLE SENTENCES OR QUESTIONS.
- ASK ONE QUESTION AT A TIME
- TALK SLOWLY
- SPEAK IN A LOW PITCH VOICE
- PROVIDE PRAISE AND REASSURANCE
- UTILIZE REALITY ORIENTATION

PHYSICAL APPROACH

- DO NOT APPROACH FROM BEHIND
- ENSURE THE PATIENT CAN SEE YOUR FACE
- APPROACH SLOWLY
- MAY NEED TO SEE YOUR FACE BEFORE THEY REALIZE YOU ARE SPEAKING TO THEM
- RECOGNIZE THAT SOME PATIENTS WILL MIRROR YOUR BEHAVIOR

NON-VERBAL COMMUNICATION

- RELAXED POSTURE
- SIT DOWN TO SPEAK TO THEM AT THEIR LEVEL
- REMAIN CALM
- KEEP THE ENVIRMENT QUIET IF POSSIBLE
- TOUCH CAN BE CALMING
- USE NONVERBAL CLUES (Gestures, facial expressions, pointing and demonstration)

Communication

- When the patient askes the same question several times even after the question has been answered, the caregiver should respond (again) to the question and try to distract the patient (although frustrating this is best practice)
- Use patience and understanding (they are most likely afraid)
- Reassure the patient that you are there to care for them
- Do not agree or go along with the hallucination
- Avoid confrontation

GUIDELINES FOR CARE FOR THE CONFUSED PATIENT

- USE PATIENCE AND UNDERSTANDING
- MAINTAIN A CALM, QUIET ENVIRONMENT
- USE SIMPLE, CLEAR WORDS AND SENTENCES
- GIVE FREQUENT PRAISE AND REASSURANCE
- USE TOUCH AND OTHER FORMS OF NONVERBAL COMMUNICATION
- USE REALITY ORIENTATION

GUIDELINES FOR CARE OF THE AGGRESSIVE/ COMBATIVE PATIENT

- DO NOT RESPOND IN ANGER
- BE AWARE OF WARNING SIGNS OF ANGER, SUCH AS MUSCLE TENSION, RESTLESSNESS, PACING, CRYING, AND LOUD SPEECH
- OFFER DISTRACTIONS
- COMMUNICATE AND REASSURE
- BE AWARE OF YOUR NONVERBAL COMMUNICATION
- SIT DOWN, YOU WILL APPEAR LESS THREATENING
- The 3 R's - REPEATING, REASSURING, REDIRECTING

Illinois Chapter - www.alz.org/illinois
24/7 Helpline: 800-272-3900

Thank You