



SAINT SOPHIE'S

PSYCHIATRIC CENTER



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PRESENTING TO

Dementia

*Overview of
Diagnosis and Treatment*

October 7th, 2020



PRESENTER

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Objectives

By the end of the course the participant will be able to:

- Compare and contrast types of dementia
- Increase diagnostic abilities in the assessment of dementia
- Increase ability to list treatment options
- Increase ability to list prevention strategies





What is normal with aging?

- Slowed thinking
- Reduced attention
- Reduced retention
- Word finding difficulties
- Difficulty multitasking

gradual and subtle





Dementia is:

An over-arching term that signifies a progressive condition that affects cognition and functioning, and may lead to changes in emotion, personality and behavior.

DSM-5:

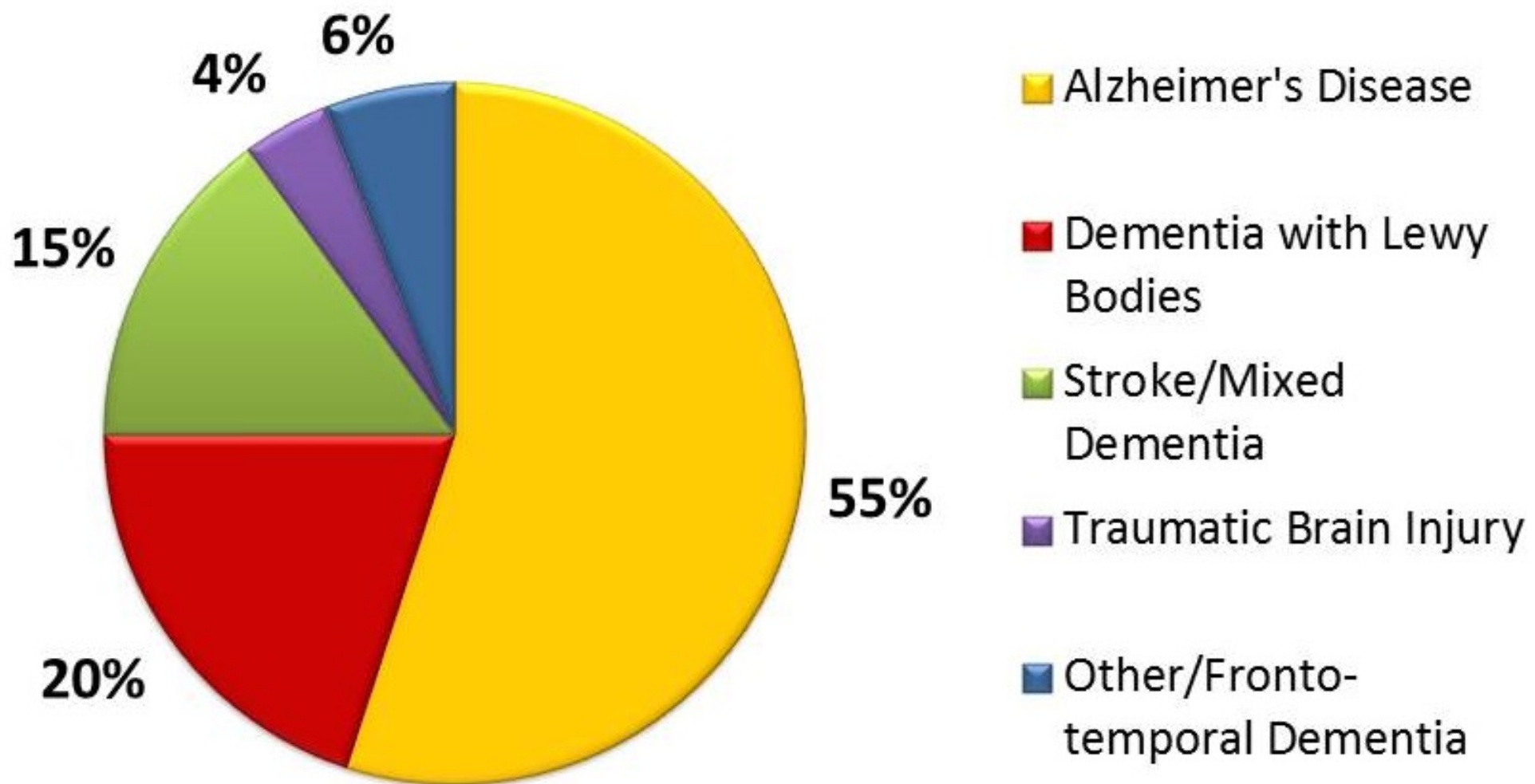
Major Neurocognitive Disorder



Types

- Alzheimer's Disease (AD)
- Dementia with Lewy Bodies (DLB)
- Vascular dementia (VD)
- Frontotemporal dementia (FTD)
- Parkinson's disease dementia (PDD)
- Other causes







Related Terms

Mild Cognitive Impairment (MCI)

Cognitive decline

No significant functional decline

DSM 5: "*Mild Neurocognitive Disorder*"



Cognition

- Memory
- Attention
- Language
- Visuospatial function
- Praxis
- Executive function
- Social cognition





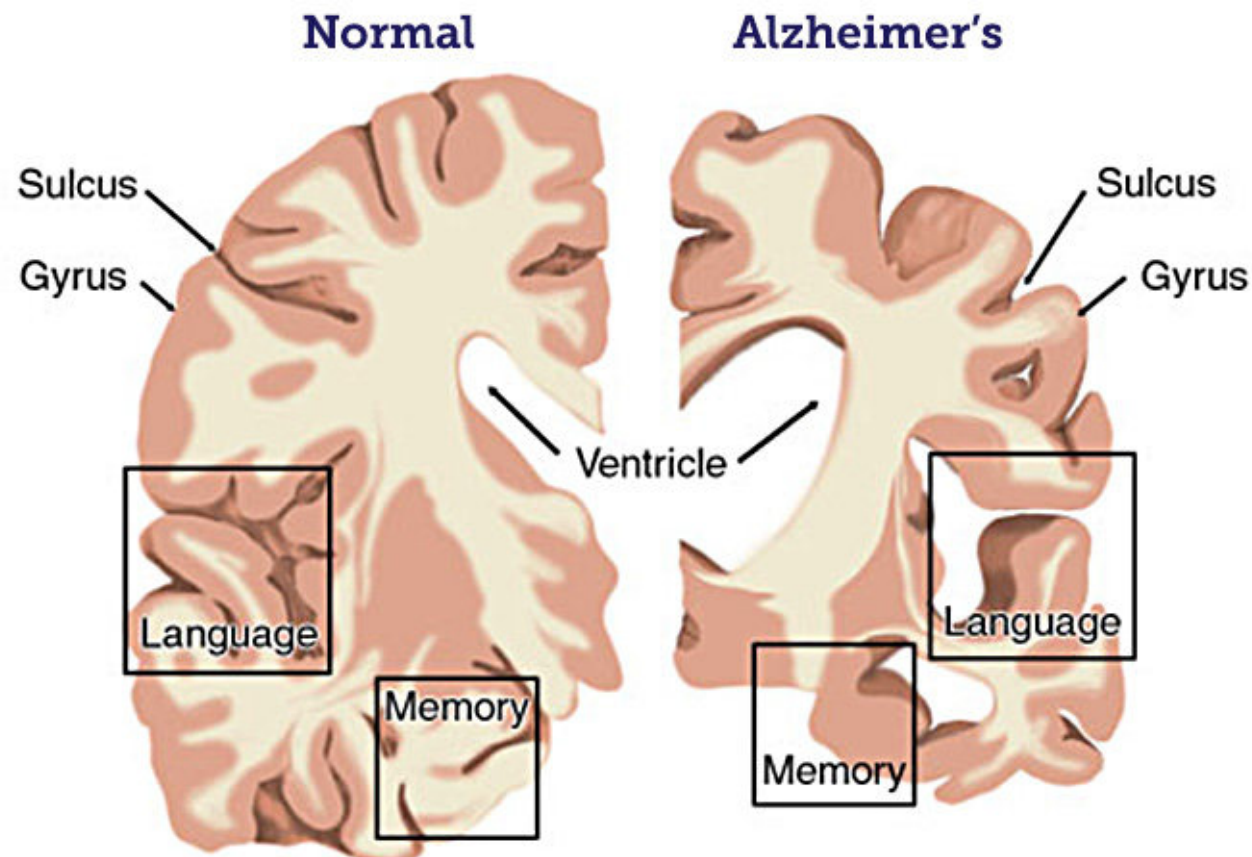
Alzheimer's Association Stats

- Over 5 million in US have AD
- By 2050—nearly 14 million
- 6th leading cause of death in US
- 1 in 10 age 65>
- 1 in 3 seniors die with some form of dementia
- 305 billion in cost today—1.1 trillion (2050)



Alzheimer's Disease

Brain Cross-Sections



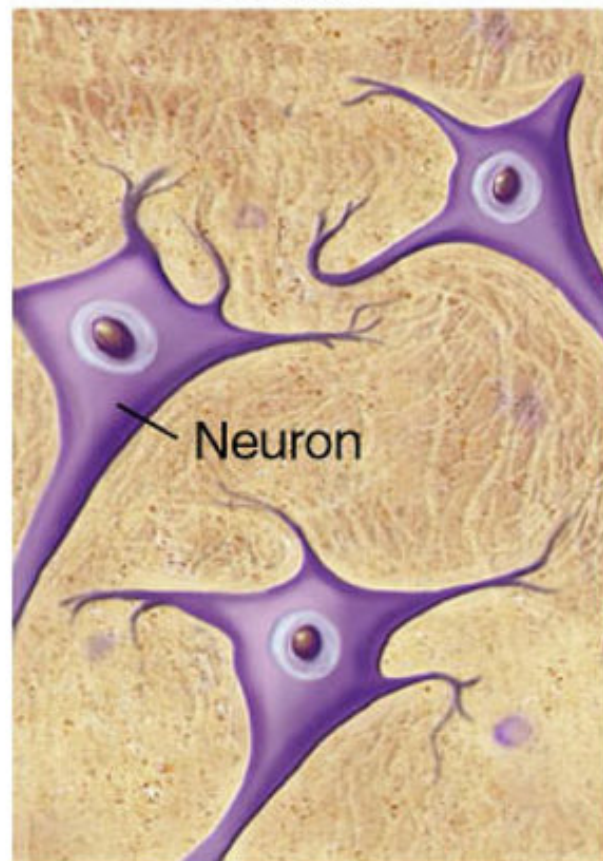


Risk Factors for AD

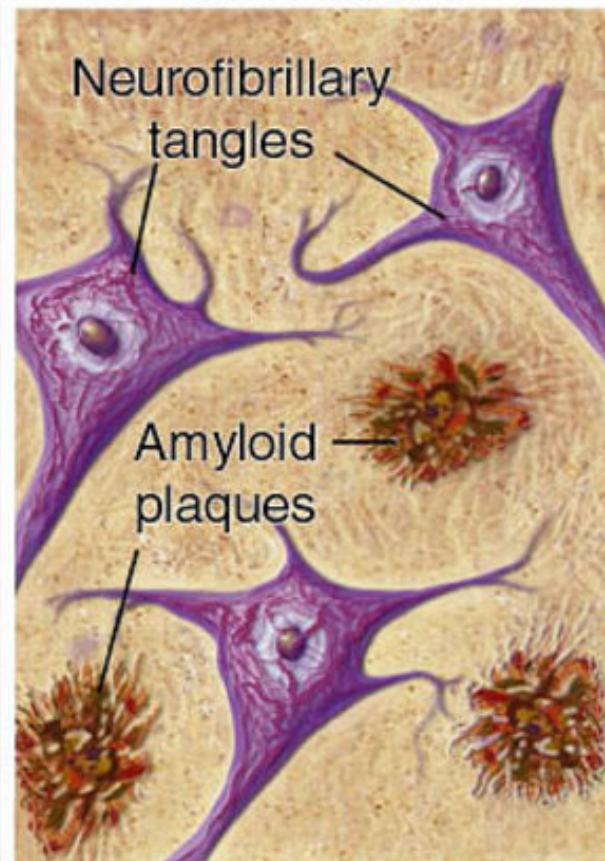
- Age/Sex/Ethnicity
- Family Hx—genetic
- Less education
- TBI
- Depression/ High Stress in midlife
- CV risk factors (including diabetes)
- Inactivity in midlife
- Hearing loss
- Long term toxin exposure



Normal



Alzheimer's





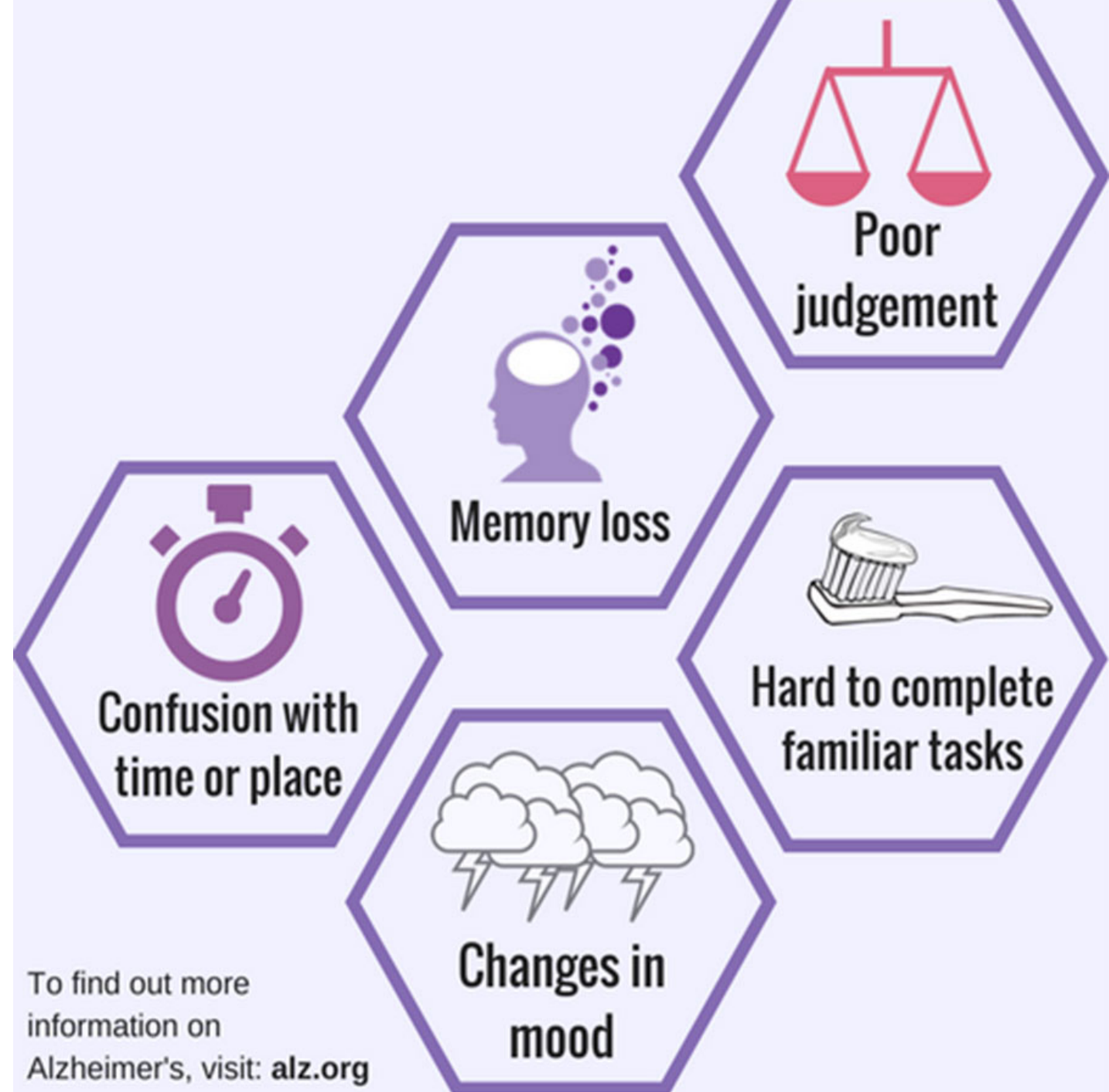
AD Genetic Factors



- Apolipoprotein E4 mutation (ApoE)
 - ¼ of US carries 1-2 copies
- APP mutation (amyloid precursor protein)
 - Is on chromosome 21 (Down Syndrome—3)
- PS1, PS2 mutations (r/t amyloid production)
- 20 other generic factors associated with family Hx



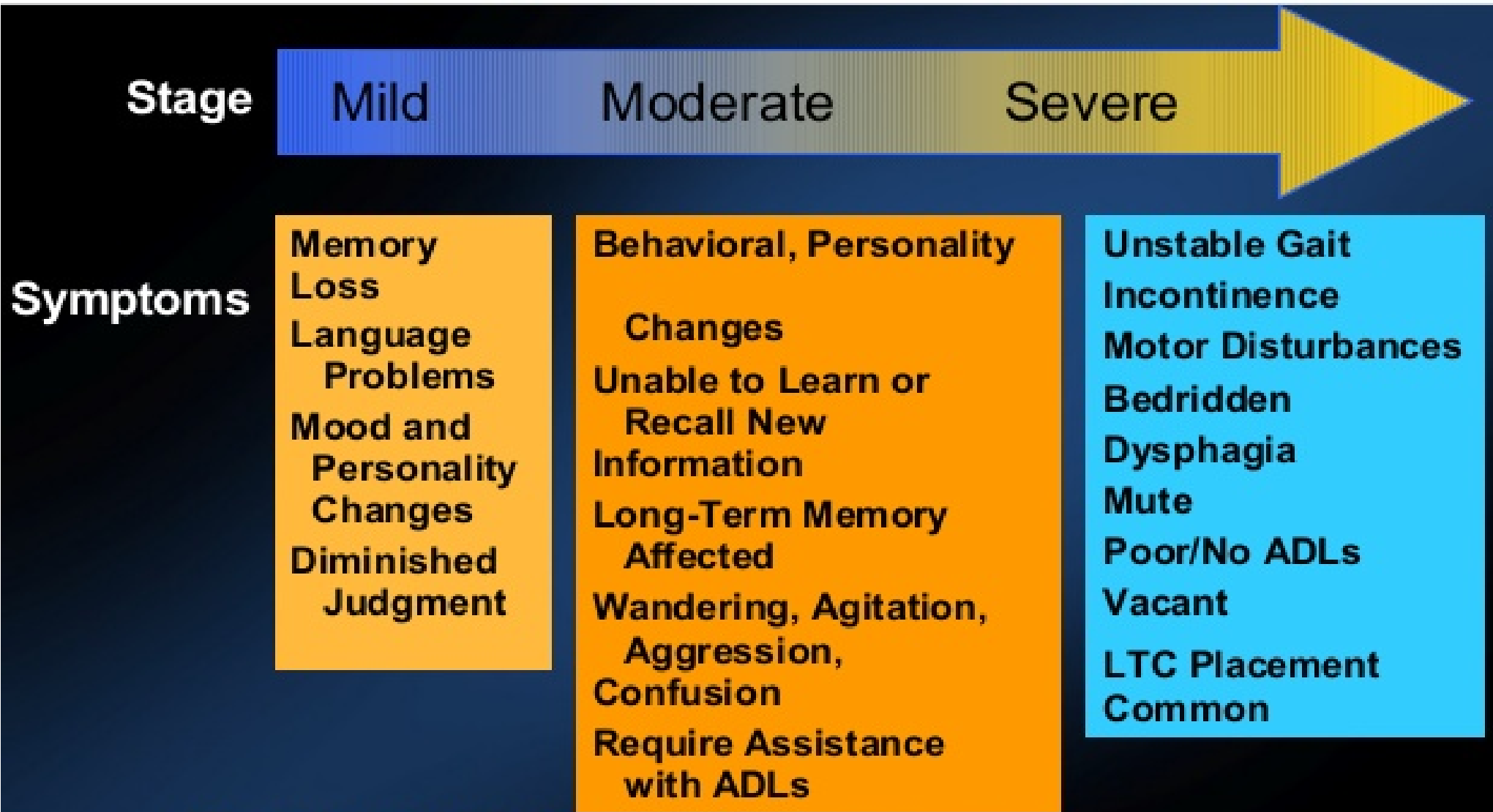
Early Signs & Symptoms of Alzheimer's



To find out more information on Alzheimer's, visit: alz.org



The Stages of Alzheimer's Disease



ADL = activities of daily living
LTC = long-term care



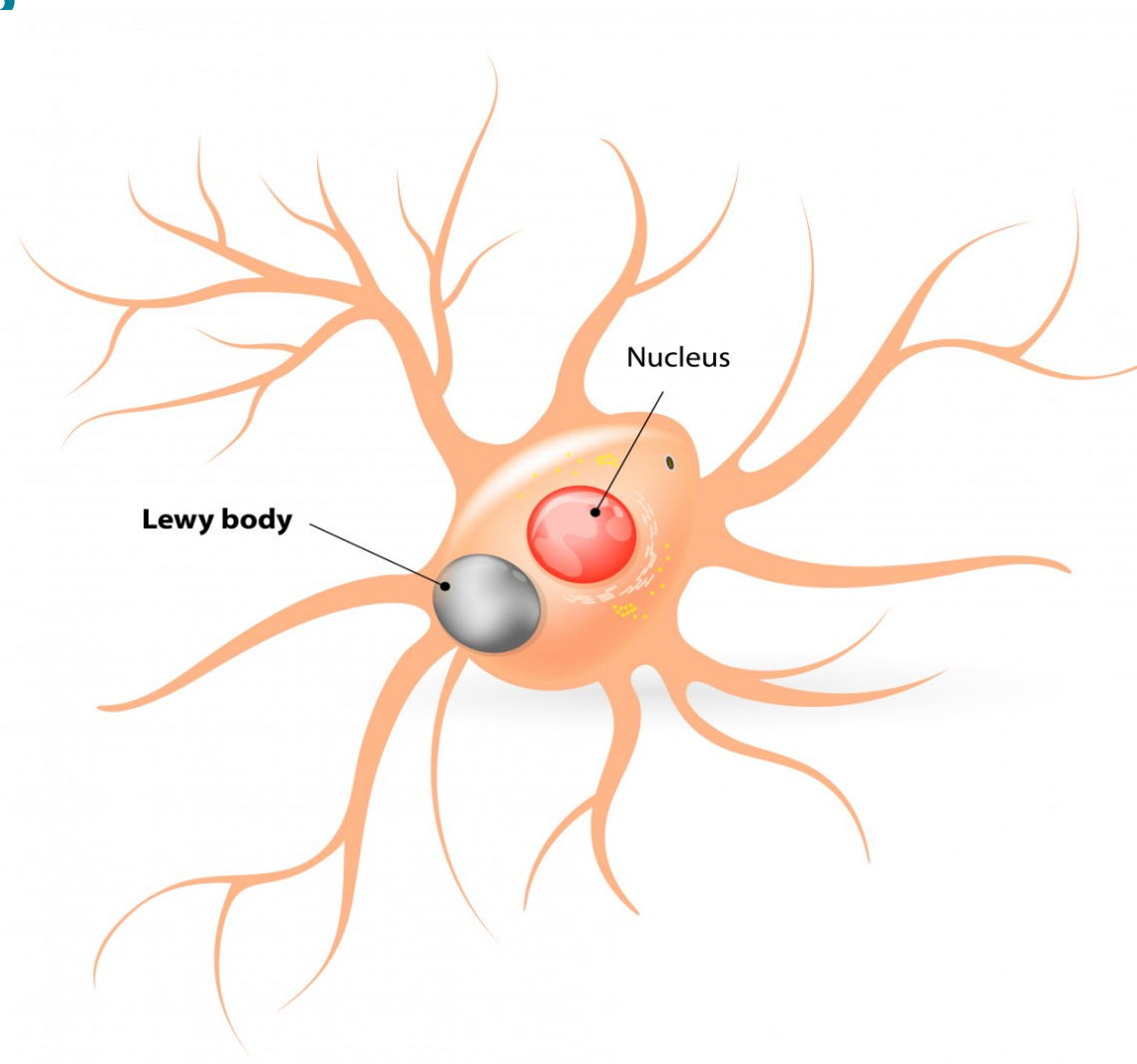
Dementia with Lewy Bodies (PD/PDD)

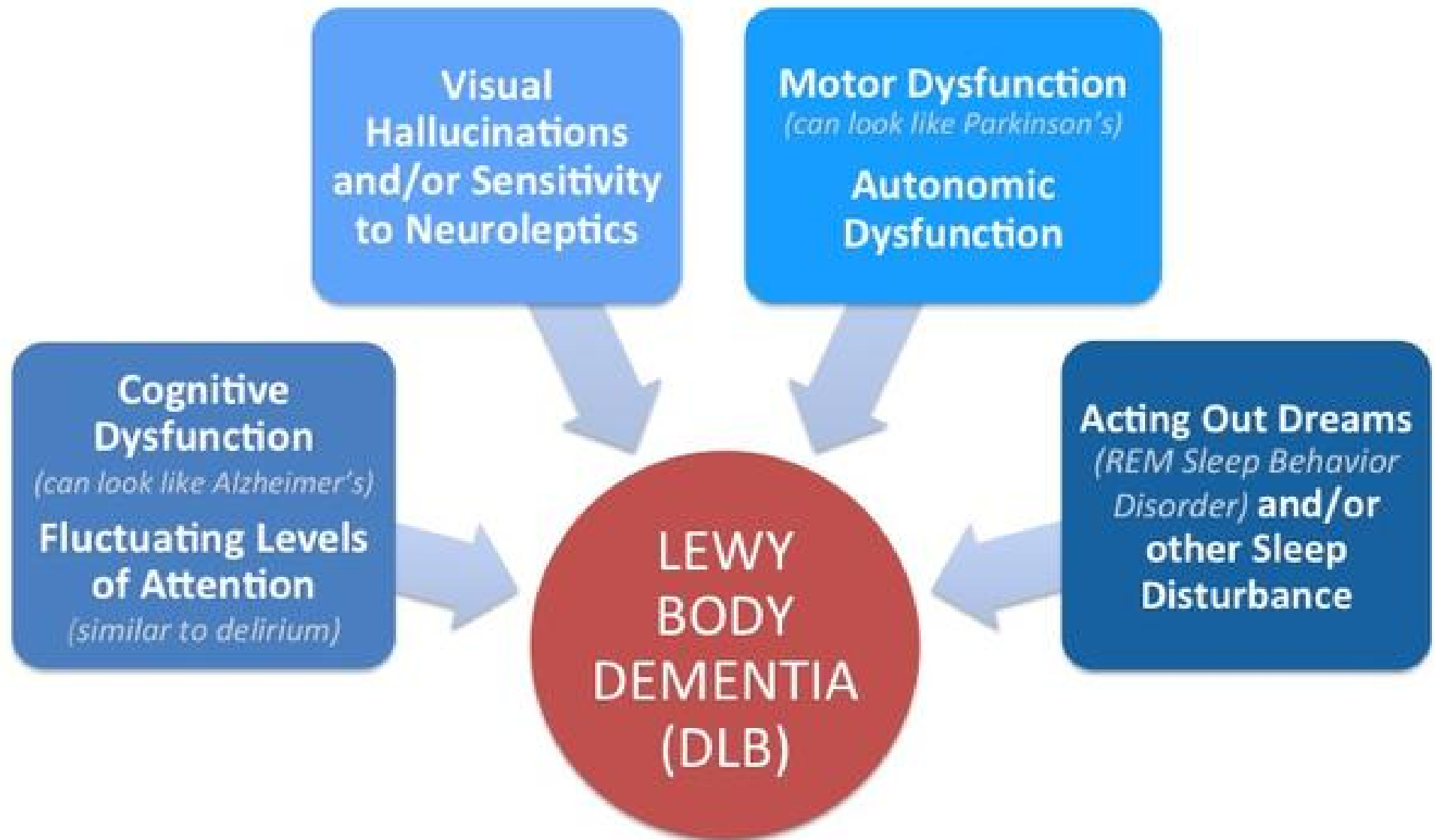
Alpha-synuclein Protein

↓ dopamine production
(movement)

↓ Reduced Acetylcholine
(cognition)

1.3 Million affected in US



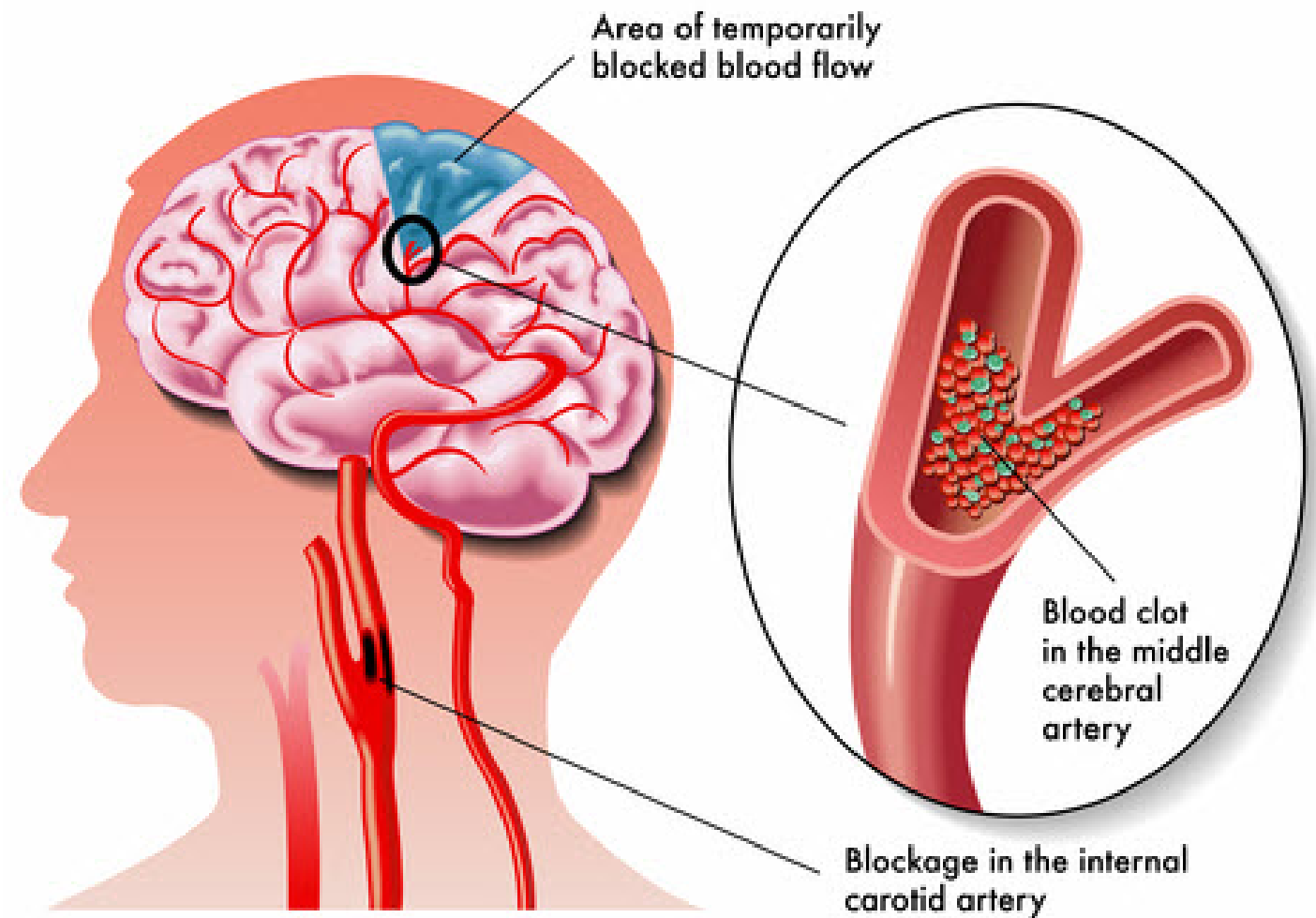




Vascular Dementia

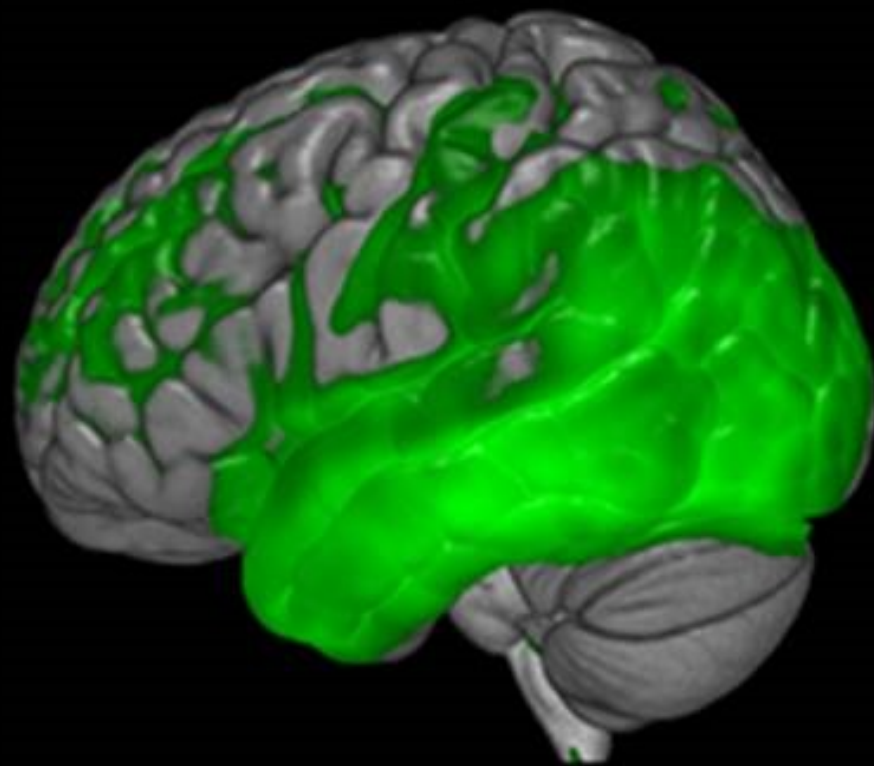
DSM-5

Major Vascular Neurocognitive disorder

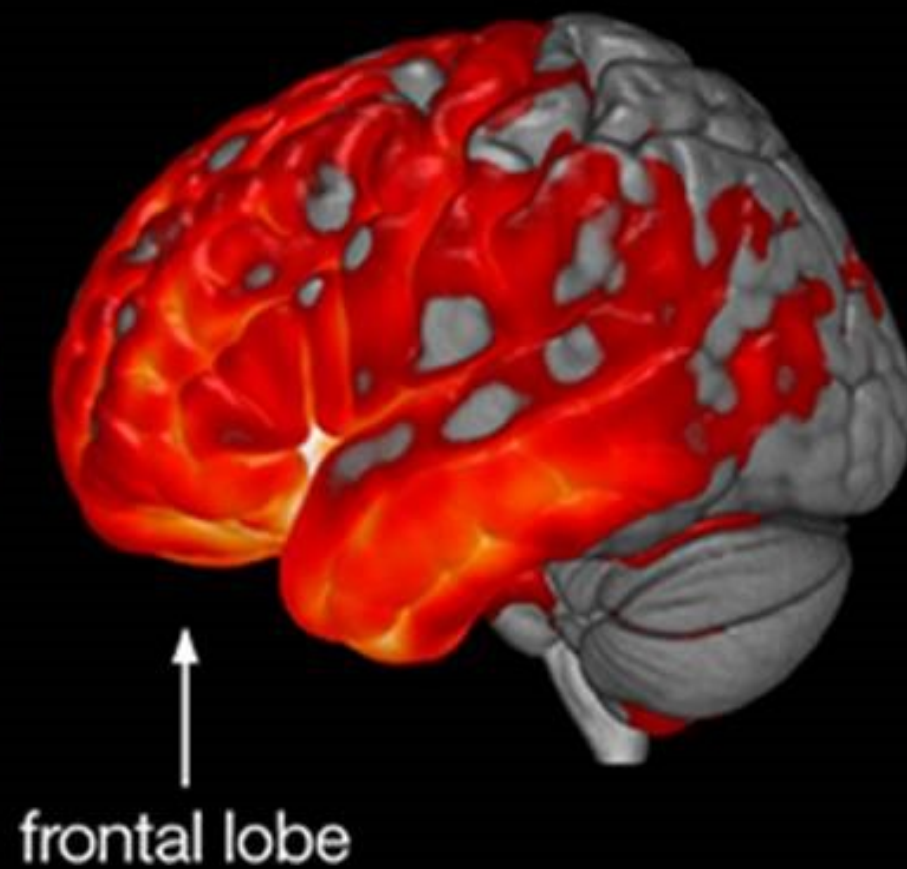




Alzheimer's Disease



Frontotemporal Dementia





Delirium

- Acute onset of symptoms
 - Inattention, disorganized thinking/altered LOC
 - Behavioral and psychological symptoms
- Fluctuation of symptoms
- Marked change from prior
- Caused by infection, medications, withdrawal or intoxication



Getting a Diagnosis



All older patients with behavioral/psychological/cognitive symptoms with functional decline need a diagnostic evaluation. Families deserve a diagnosis to help plan for the future. It is very common for families to put this off—thinking it is normal aging or not wanting to consider the alternative.



Assessment History/Examination

Documented/Reported Hx
Physical & MS exam/labs
Neurological assessment
Neuropsychological testing
Neuroimaging
Lumbar puncture
Genetic testing (rare)





Addressing Medical Issues

- Vision/hearing
- Pain
- Infection/UTIs
- Vit deficiency
- Sleep apnea
- Thyroid dysfunction
- Medications



Rating Scales

Montreal Cognitive Assessment (MoCA)*

St. Louis University MSE (SLUMS)

Mini-Cognitive Assessment

Mini-Mental State Exam (MMSE)

Gen Practitioner Assess of Cogn (GPCOG)





Mini-Cog™

Instructions for Administration & Scoring

ID: _____ Date: _____

Step 1: Three Word Registration

Look directly at person and say, "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now." If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).

The following and other word lists have been used in one or more clinical studies.¹⁻³ For repeated administrations, use of an alternative word list is recommended.

Version 1	Version 2	Version 3	Version 4	Version 5	Version 6
Banana	Leader	Village	River	Captain	Daughter
Sunrise	Season	Kitchen	Nation	Garden	Heaven
Chair	Table	Baby	Finger	Picture	Mountain

Step 2: Clock Drawing

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go." When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

Step 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Word List Version: _____ Person's Answers: _____

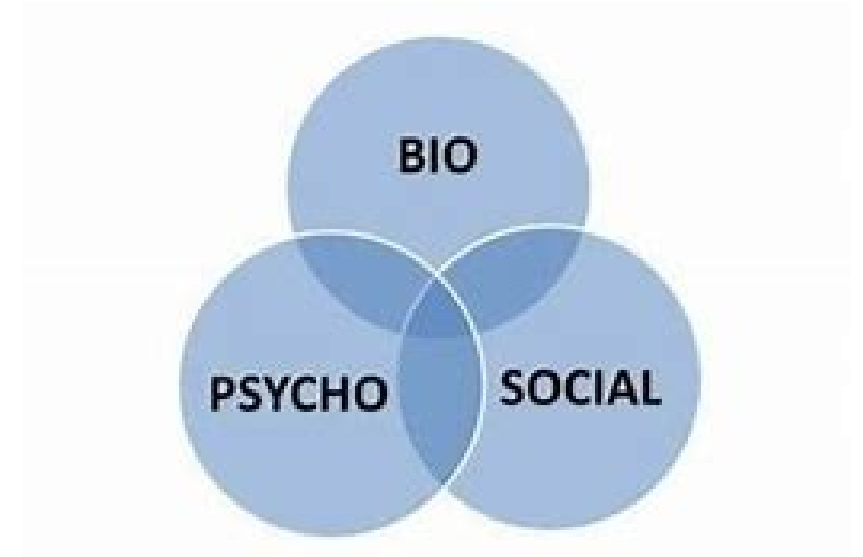
Scoring

Word Recall: _____ (0-3 points)	1 point for each word spontaneously recalled without cueing.
Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.
Total Score: _____ (0-5 points)	Total score = Word Recall score + Clock Draw score. A cut point of <3 on the Mini-Cog™ has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.



Treatment

- Pharmacological Tx
- Psychosocial approaches
- Complementary and Alternative Tx





Drug Treatment for Behavioral/Psych/Cognitive Symptoms

- Antidepressants
- Antipsychotics
- Benzodiazepines
- Cholinesterase inhibitors
- NMDA antagonists





Drug Treatment

- **Acetylcholinesterase inhibitors**
 - Donepezil (**Aricept**)
 - Rivastigmine (**Exelon**)
 - Galantamine (Razadyne)
- **NMDA antagonists**
 - Memantine (**Namenda**)





Use of Antipsychotics

- Modest efficacy—agitation/psychosis
- Risk/benefit analysis important
- Lack of alternative Tx
 - Danger to Pt/others
 - Severe distress
- FDA--Black box warning





Medications to avoid

- Anticholinergics
 - Antihistamines—Benedryl/hydroxyzine
 - Some antidepressants (amitriptyline, paroxetine)
 - Antispasmodics—GI/bladder
 - Antiparkinsonian agents--benztropine
 - Antipsychotics (ie. Quetiapine)
- Sedatives hypnotics (benzos, Ambien)
- Opioids





Special Considerations

- **DLB**—prone to side effects of antipsychotics
 - Aricept may reduce hallucinations
 - Some antiparkinsonian Tx can worsen Sx
 - Memantine is not helpful
- **VD**—SGA/Haldol can be helpful; CI not as helpful
- **FTD**—more sensitive to S/E; CIs not very helpful

Treatments
on the
Horizon
Progressing
toward
treatment,
not cure.

- Anti-tau treatments
 - Vaccines
 - Stop production
- Anti-amyloid treatments
 - Remove
 - Stop production
- Reduction of oxidative stress/free radicals
- Tau-Tangles relationship
- Effect of anti-diabetic drugs



Psychosocial Treatment

(psychological, behavioral, environmental plan)

- Support/education for family and staff
- Identification/management of antecedents
- Managing cognitive/sensory stimulation
- Reduction of stress
- Unconditional acceptance/positive regard



Psychological Therapies

- Reminiscence therapy
- Problem solving therapy
- Validation therapy
- Simulated presence therapy
- Personalized Cognitive Rehab therapy--CogStim





Complementary therapies

- Massage
- Bright light therapy
- Aroma therapy
- Laughter Yoga
- Acupuncture
- Pet therapy
- Art therapy
- Music therapy





Keys to Prevention

✓Diet

✓Exercise

✓Cognitive training



Diet/Nutrition Tx

- Mediterranean Diet—Dash diet hybrid/Finger study diet
- Whole Food Plant Base Diet (WFPB)
- Ketogenic diet (dementia state)

-
- B Complex vitamins
 - Antioxidants
 - Anti-inflammatory
 - Unsaturated Fatty Acids





Dangers of Standard American Diet

- Foods processed/refined, sugar and saturated fat laden
- Suppression of BDNF
- Promotes inflammation in the brain
- Lead to insulin resistance
 - Damage cells
 - Disrupt neural connection

"Type III Diabetes"





Exercise

- Improved neurochemistry
- Stimulates brain growth
- Reduces brain shrinkage
- Enhances cognition
- Improves quality of life in AD
- Lowers rates of dementia
- 2/3 Cardio---1/3 strength training
- AHA Model: Cardio 30 min/day x5





Preventive Cognitive Training



Structured training exercises that enhance reasoning, memory and speed of processing.

- May or may be computer based
- Brain games strengthen one neuropathway and benefits are temporary.
- Learning new skills provides more neural benefit.
- Meditation can improve brain function and reduce stress hormones.



Adjusting Level of Care

- Progressive nature of the illness
- Safety of patient/family
- Possible exacerbation/improvement
- Move from expectation of improvement to offering hope of maintaining dignity and quality of life



General Principles for Family

- Be flexible/improvise
- Don't take it personally
- Allow as much control as possible
- Be realistic about what to expect
- Avoid reasoning/convincing
- Address the emotional response
- Be smart about routines
- Use distraction
- Keep environment safe
- Watch for signs of burnout



Ethical/Legal Considerations

- Autonomy vs safety/welfare
- Capacity/Informed consent
- Protection for the vulnerable
- Self neglect
- Neglect and abuse
- Financial abuse





Decisional Capacity

“The ability to understand and appreciate the nature and consequences of a decision regarding medical treatment and the ability to reach an informed decision in the matter.”

<https://www.lawinsider.com/dictionary/decision-making-capacity>



Proxies for Incapacity

Decision maker considers:

Wishes/values

Best interest

- Legal next of kind
- Health Care POA
- Legal guardian





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