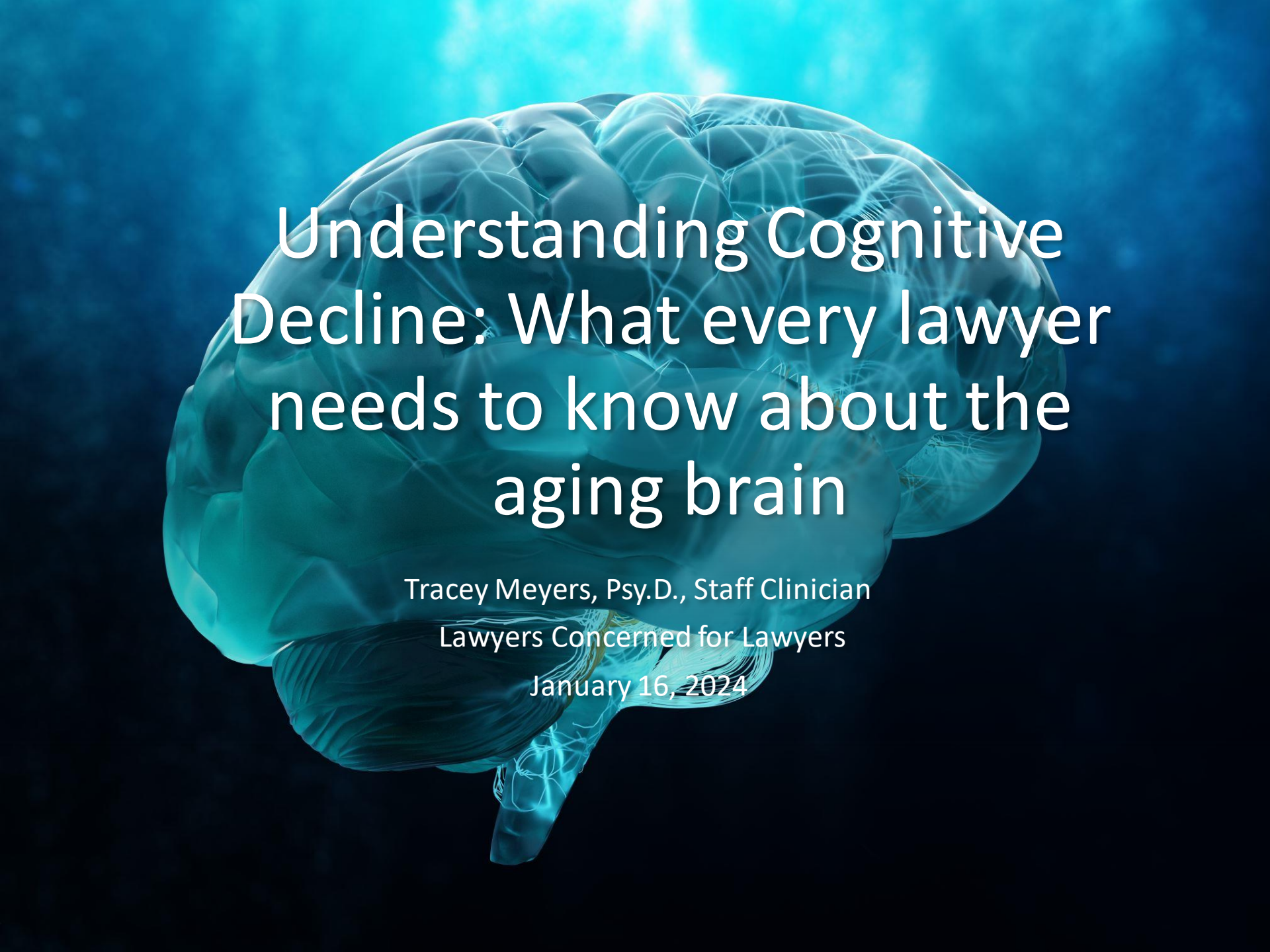


Understanding Cognitive Decline: What every lawyer needs to know about the aging brain

Tracey Meyers, Psy.D., Staff Clinician
Lawyers Concerned for Lawyers

January 16, 2024

Topics

What is cognition, cognitive decline, and cognitive impairment?

Statistics and prevalence rates of cognitive impairment as we age

What are the signs and symptoms of cognitive decline?

Assessment and treatment for cognitive decline

How can I help someone who is struggling with cognitive impairment?

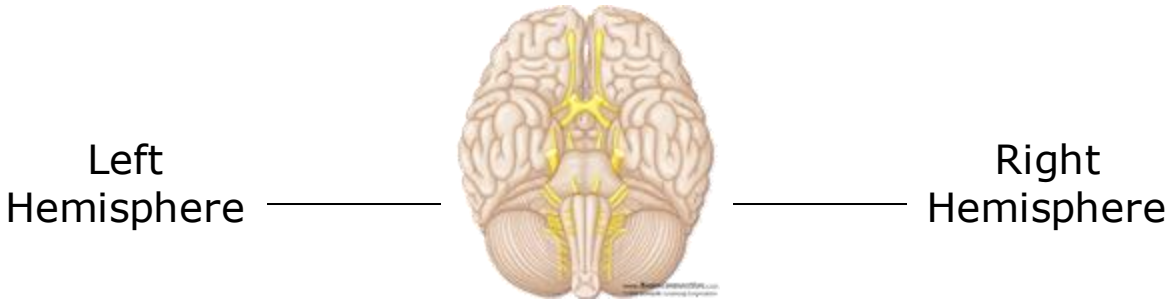
Lawyers and Cognitive Decline

- Lawyers must rely on their memory, expressive language skills, and ability to concentrate for long periods of time.
- Even subtle changes in these capacities can impact a lawyer's ability to do their job and could lead to significant problems in the workplace.
- Lawyers are less likely to seek help for mental health and cognitive problems as compared to other professions due to fear, stigma, lack of resources, and shame.
- Lawyers struggle with maintaining healthy lifestyles and may place themselves at a higher risk for cognitive decline due to excessive drinking, smoking, lack of exercise and unhealthy diet leading to hypertension, diabetes, and other health-related issues.

What is cognition?

Simply put, cognition is thinking, and it encompasses the processes associated with perception, knowledge, problem solving, judgment, language, and memory.

Two hemispheres of the Brain



- Information is processed in different ways unique to each hemisphere. (Two brains)
- Communicate with each other a thousand times per second through a bundle of nerve fibers known as the corpus callosum.

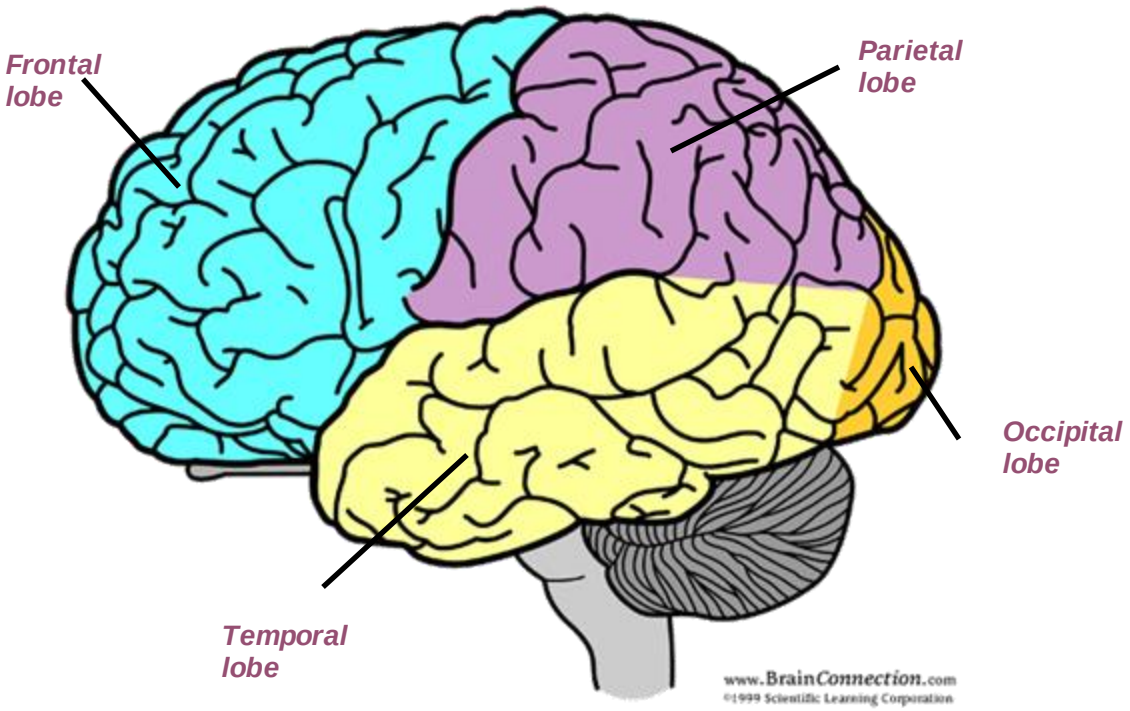
Functions of the Brain (Left Hemisphere)

- Controls right side of body
- Logical
- Understanding language
- Speaking / verbal output
- Verbal memory
- Sequencing

Functions of the Brain (Right Hemisphere)

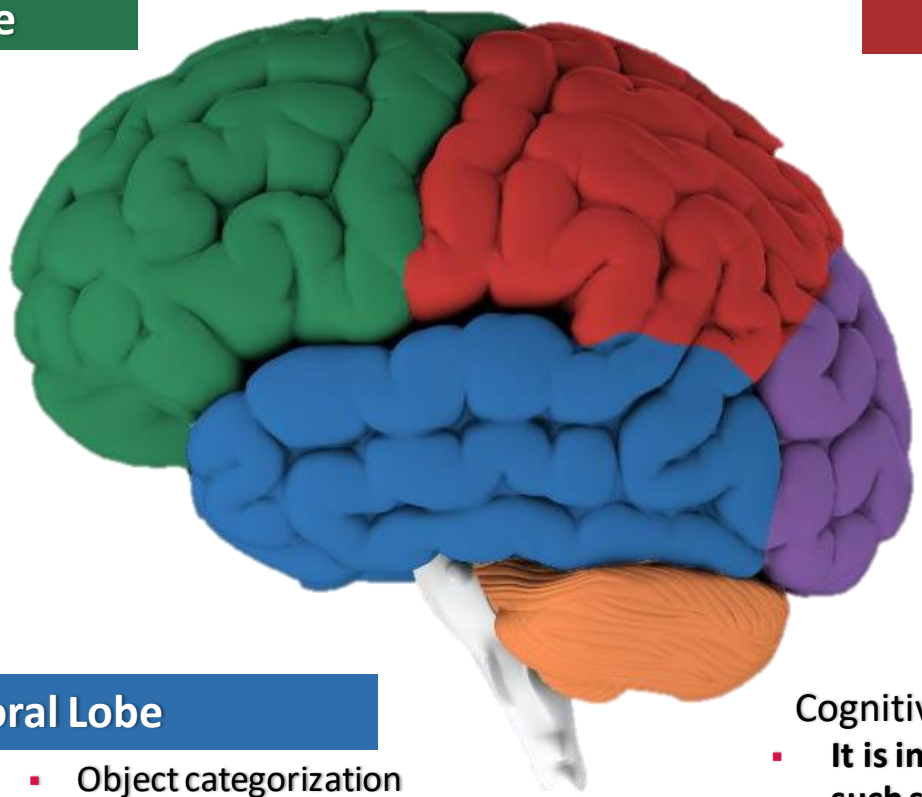
- Controls left side of body
- Holistic
- Visual-spatial perception
- Awareness of deficits
- Creativity and music perception
- Gestalt (big picture)
- Visual memory

Lobes of the Brain



Frontal Lobe

- Emotional control
- Behavioral control
- Verbal expression
- Problem Solving
- Decision Making
- Social control
- Motivation
- Attention



Parietal Lobe

- Tactile performance
- Spatial orientation
- Academic skills
- Object naming
- Visual attention
- Eye-hand coordination

Occipital Lobe

- Visual stimuli processing

Temporal Lobe

- Memory
- Face recognition
- Selective attention
- Locating objects
- Object categorization
- Receptive language
- Emotional responses
- Language comprehension

BRAIN INJURY ASSOCIATION OF AMERICA

Cognitive functions by location

- **It is important to consider that such skills in reality are not so discretely defined, as there are innumerable connections between lobes and brain regions**

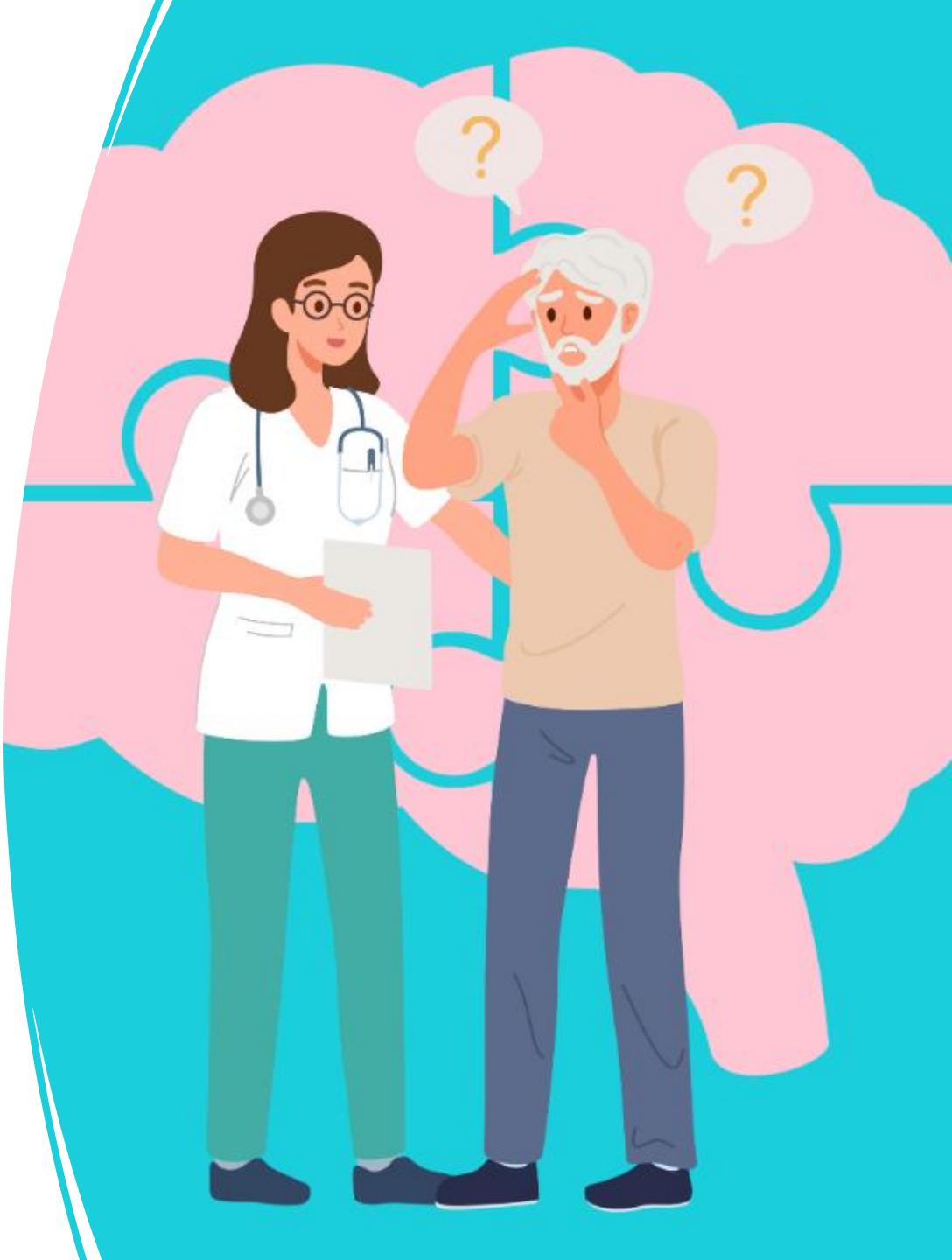
Cognitive domains

- Executive function (frontal lobes, right and left hemispheric white matter)
- Attention (frontal lobes)
- Memory (medial temporal lobes/ hippocampus)
- Language (left hemisphere, usually)
- Visuospatial (occipital and parietal lobes)

What is cognitive decline?

Cognitive decline:

Concern or difficulty with a person's thinking, memory, concentration, and other brain functions beyond what is typically expected due to aging.



What is cognitive decline?

Subjective cognitive decline

An individual's perception that their memory and other thinking skills are worsening, independent of cognitive testing, a physician's diagnosis or anyone else noticing (10% of those aged 45 and older reported subjective cognitive decline).

Mild cognitive impairment (MCI)

A diagnostic condition - Early stage of memory loss or other cognitive ability loss (such as language or visual/spatial perception) in individuals who maintain the ability to independently perform most activities of daily living (about 20% of those aged 65 and older).

MCI due to Alzheimer's disease

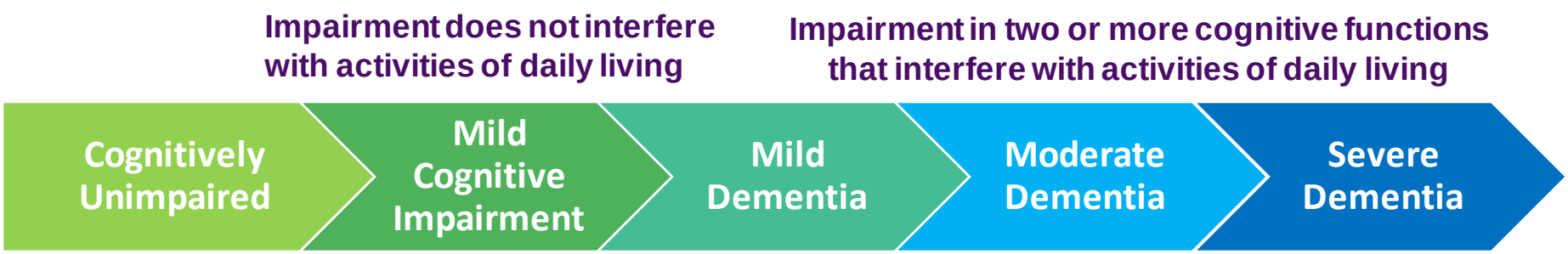
Symptoms of MCI along with brain changes characteristic of Alzheimer's disease and is symptomatic precursor to Alzheimer's dementia (about half of people with MCI have Alzheimer's-related brain changes).

*Approximately 10% of those aged 65 and older in 2023 have MCI due to Alzheimer's disease.

What is Mild Cognitive Impairment?

- Mild cognitive impairment (MCI) is an early stage of memory loss or other cognitive ability loss (such as language or visual/spatial perception) in individuals who maintain the ability to independently perform most activities of daily living.
- Mild cognitive impairment causes cognitive changes that are serious enough to be noticed by the person affected and by family members and friends but do not affect the individual's ability to carry out everyday activities.
- MCI can develop for multiple reasons, and individuals living with MCI may go on to develop dementia; others will not.
- In some individuals, MCI reverts to normal cognition or remains stable. In other cases, such as when a medication causes cognitive impairment, MCI is mistakenly diagnosed.
- It is important that people experiencing cognitive changes seek help as soon as possible for diagnosis and possible treatment.

CONTINUUM OF COGNITIVE IMPAIRMENT



MCI is a known risk factor for dementia

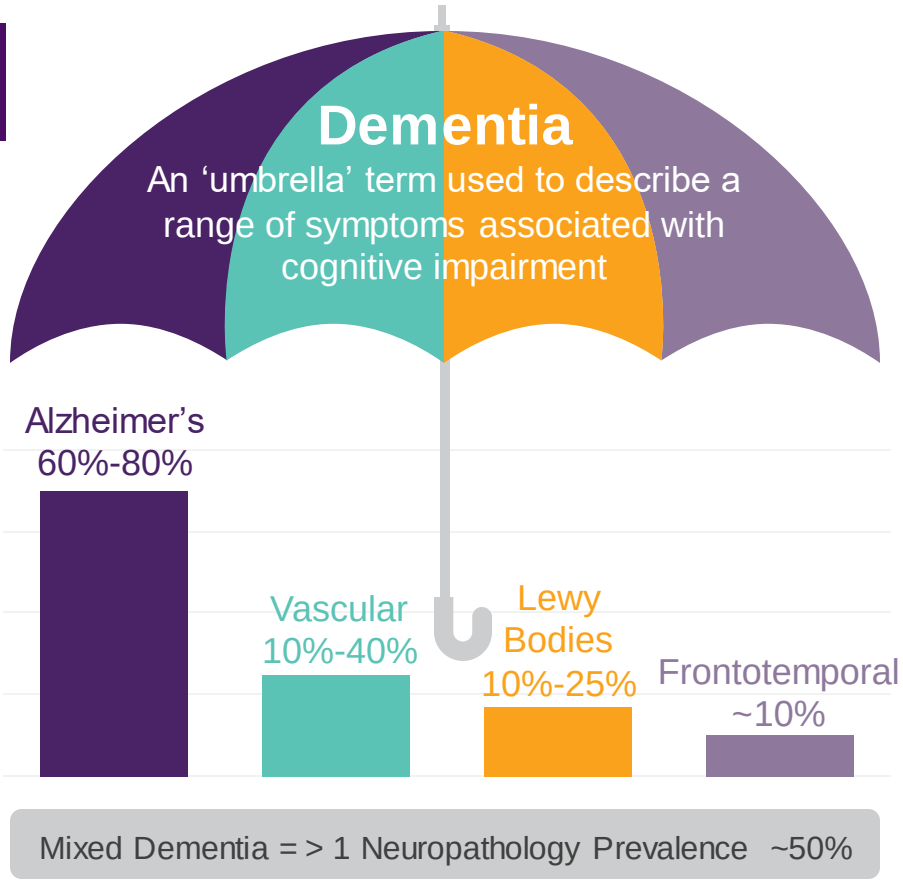
Everyone who experiences dementia passes through MCI

But not everyone who has MCI goes on to have dementia

When you prevent new cases of MCI, you are preventing new cases of dementia

DEMENTIA IS A SYNDROME

- Dementia is a collection of symptoms related to cognitive decline
- Can include cognitive, behavioral and psychological symptoms
- Due to biological changes in the brain
- Alzheimer's is most common cause
- Mixed dementia is very prevalent
- Some causes of cognitive decline are reversible and not truly dementia



2023 ALZHEIMER'S DISEASE FACTS AND FIGURES

More than
6 million Americans
are living with Alzheimer's

Over 11 million Americans
provide unpaid care for people with Alzheimer's or other dementias

These caregivers provided more than 18 billion hours valued at nearly
$340 billion

1 in 3
seniors dies with Alzheimer's or another dementia

It kills more than
breast cancer + prostate cancer
combined

The lifetime risk for Alzheimer's at age 45 is
1 in 5 for women
1 in 10 for men

Between 2000 and 2019, deaths from heart disease has
decreased 7.3%

while deaths from Alzheimer's disease have
increased 145%

In 2023, Alzheimer's and other dementias will cost the nation
$345 billion

By 2050, these costs could rise to nearly
$1 trillion

While only 4 in 10 Americans talk to their doctor right away when experiencing early memory or cognitive loss,

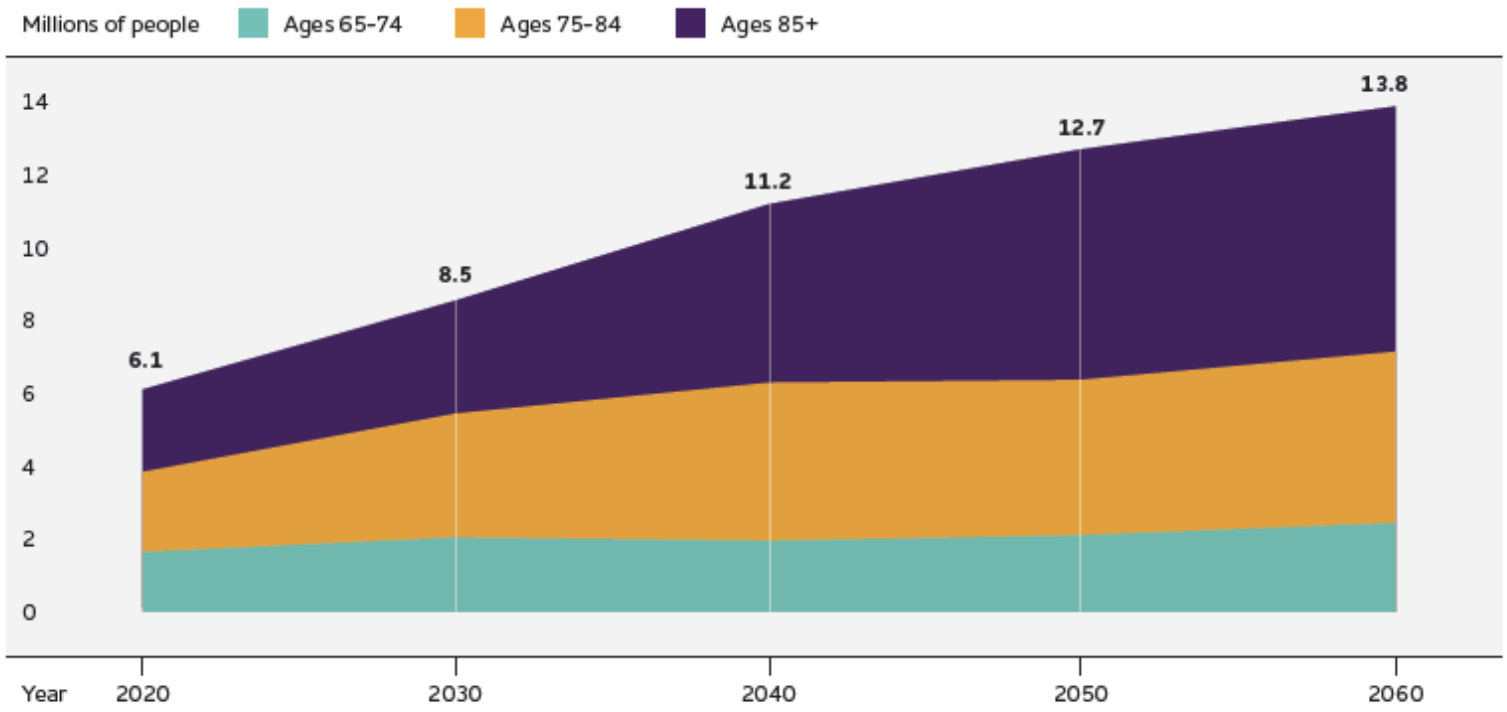
7 in 10 would want to know early if they have Alzheimer's disease if it could allow for earlier treatment.

https://www.alz.org

Alzheimer's Disease statistics

Figure 5

Projected Number of People Age 65 and Older (Total and by Age) in the U.S. Population with Alzheimer's Dementia, 2020 to 2060



Created from data from Rajan et al.[A6,222]

Alzheimer Disease Statistics

- Of the 6.7 million people aged 65 and older with Alzheimer's dementia in the United States, 4.1 million are women and 2.6 million are men. This represents 12% of women and 9% of men aged 65 and older in the United States
- In the U.S., non-Hispanic Black and Hispanic older adults are disproportionately more likely than White older adults to have Alzheimer's or other dementias.
- 19% of Black and 14% of Hispanic adults aged 65 and older have Alzheimer's dementia compared with 10% of White older adults.
- Most other prevalence studies also indicate that Black older adults are about twice as likely to have Alzheimer's or other dementias as White older adults

Alzheimer Disease Statistics

- The difference in risk for Alzheimer's and other dementias among racial and ethnic groups is most likely explained by disparities produced by the historic and continued marginalization of Black and Hispanic people in the United States — disparities between older Black and Hispanic populations and older White populations in life experiences, socioeconomic indicators, and ultimately health conditions.
- These health and socioeconomic disparities are rooted in the history of discrimination against Black individuals and other people of color in the United States, not only during interpersonal interactions, but also as enshrined in the rules, practices and policies of U.S. banks, laws, medical systems and other institutions — that is, structural racism

What is the difference between normal aging and cognitive decline?

Normal Aging

1. Sometimes forgetting names or appointments but remembering them later.
2. Making occasional errors when managing finances or household bills.
3. Occasionally needing help to use microwave settings or to record a TV show.
4. Getting confused about the day of the week but figuring it out later.

Cognitive Decline

1. Memory loss that disrupts daily life
2. Challenges in planning or solving problems
3. Difficulty completing familiar tasks
4. Confusion with time or place

What is the difference between normal aging and cognitive decline?

Normal Aging

5. Vision changes related to cataracts.

6. Sometimes having trouble finding the right word.

7. Misplacing things from time to time and retracing steps to find them.

8. Making a bad decision or mistake occasionally, like neglecting to change the oil in the car.

9. Sometimes feeling uninterested in family or social obligations.

10. Developing very specific ways of doing things and becoming irritable when a routine is disrupted.

Cognitive Decline

5. Trouble understanding visual images and spatial relationships

6. New problems with words in speaking or writing

7. Misplacing things and losing the ability to retrace steps

8. Decreased or poor judgment

9. Withdrawal from work or social activities

10. Changes in mood and personality

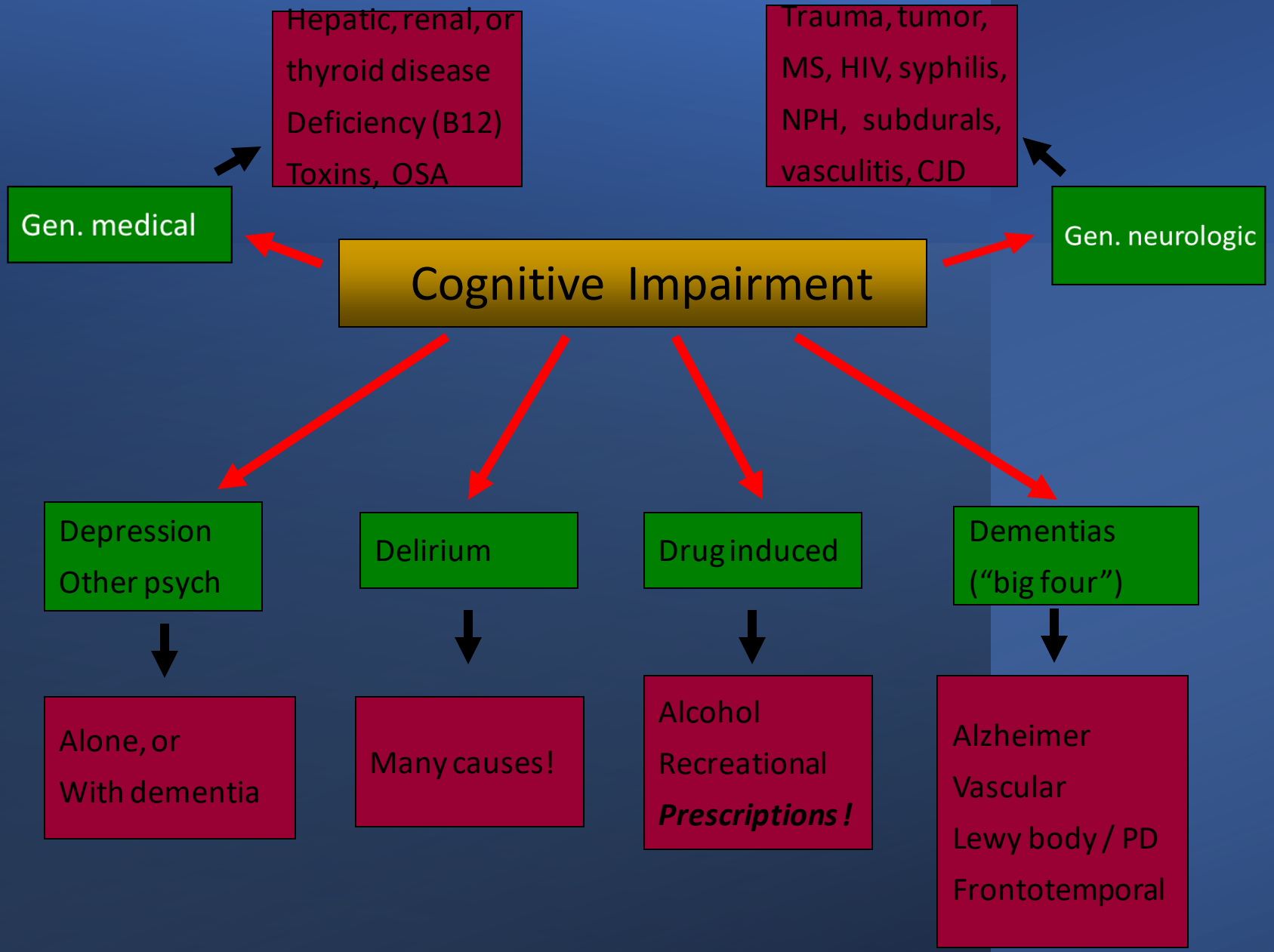
Mild Cognitive Impairment Symptoms

- Amnestic MCI: MCI that primarily affects memory. A person may start to forget important information that he or she would previously have recalled easily, such as appointments, conversations or recent events.
- Nonamnestic MCI: MCI that affects thinking skills other than memory, including the ability to make sound decisions, judge the time or sequence of steps needed to complete a complex task, or visual perception.

Mild Cognitive Impairment

- Approximately 12% to 18% of people aged 60 or older are living with MCI.
- An estimated 10% to 15% of individuals living with MCI develop dementia each year.
- About one-third of people living with MCI due to Alzheimer's disease develop dementia within five years.
- Forty-two percent of Americans say they worry about developing MCI due to Alzheimer's disease.
- More than 80% of Americans know little or are not familiar with MCI, which can be an early stage of Alzheimer's.

https://www.alz.org


Cognitive Impairment
Gen. medical
Hepatic, renal, or thyroid disease
Deficiency (B12)
Toxins, OSA
Gen. neurologic
Trauma, tumor, MS, HIV, syphilis, NPH, subdurals, vasculitis, CJD
Depression
Other psych
Alone, or
With dementia
Delirium
Many causes!
Drug induced
Alcohol
Recreational
Prescriptions!
Dementias
("big four")
Alzheimer
Vascular
Lewy body / PD
Frontotemporal

Common Conditions that Affect Brain Health

- Heart disease, high blood pressure
- Diabetes
- Heart disease, high blood pressure
- Alzheimer’s disease
- Stroke
- Traumatic brain injury
- Depression
- Sleep problems

Heart Disease and High Blood Pressure

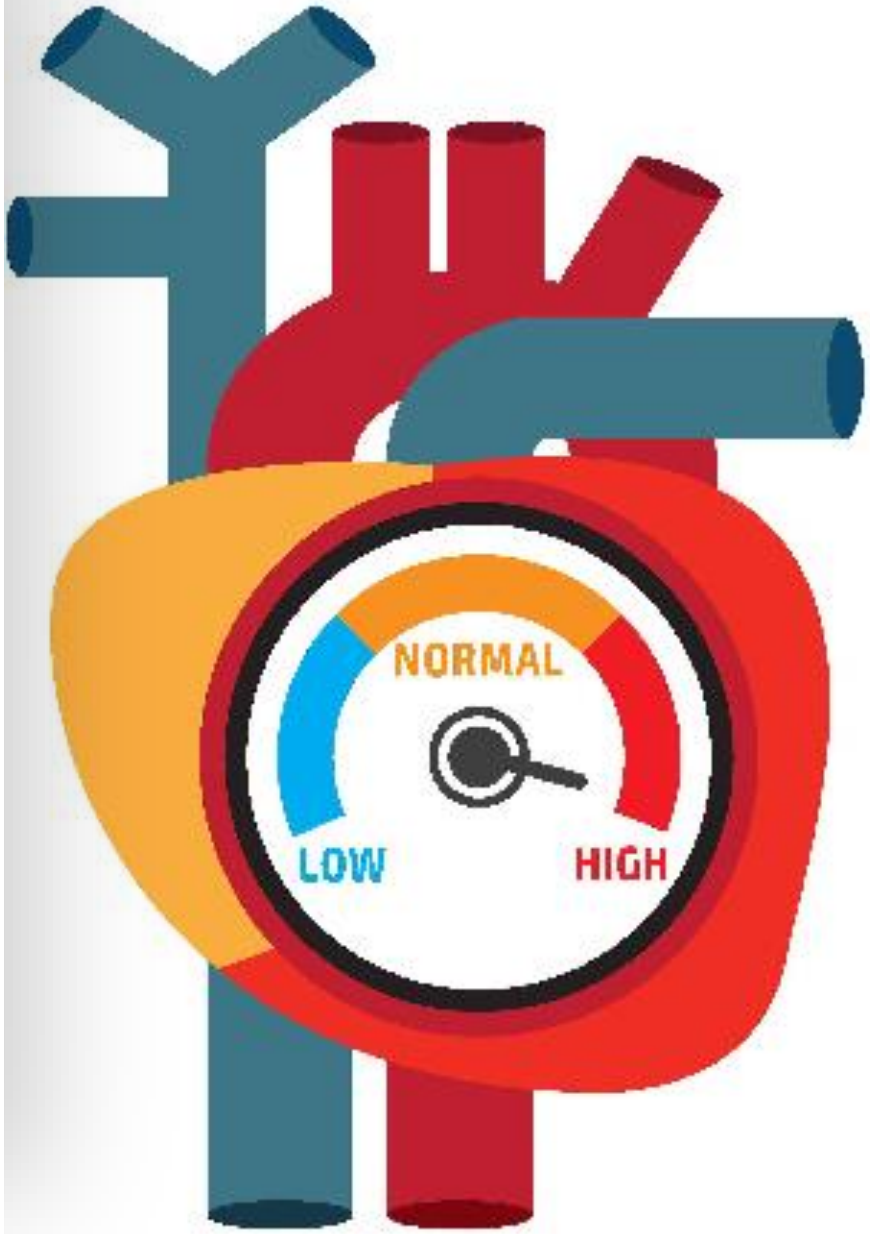
Heart disease and high blood pressure can lead to stroke and blood vessel changes related to dementia.

How to reduce risk:

- Control cholesterol and high blood pressure
- Exercise
- Eat healthy foods
- Quit smoking
- Limit use of alcohol

Hypertension

- History of hypertension is related to a higher risk of MCI. The association seems to be stronger with the non-amnestic than the amnestic component of MCI.
- Prevention and treatment of hypertension may have an important impact in lowering the risk of cognitive impairment.



Medicines and Brain Health

Some medicines (and combinations of them) can affect memory, word-finding, attention/concentration, and alertness

1. Anti-anxiety (Xanax, Ativan)
2. Anti-seizure (Keppra, Tegretol)
3. Tricyclic antidepressants (older class – Anafranil)
4. Narcotic painkillers (Vicodin, oxycontin)
5. Sleeping aids (Ambien)
6. Incontinence drugs (Ditropan)
7. Antihistamines (first generation – Benadryl)

Diabetes

- Damages blood vessels throughout your body, including your brain
- Increases risk for stroke and heart attack
- May increase risk for memory problems and Alzheimer's disease

Lifestyle factors that can influence cognitive decline

- Smoking
- Excessive use of alcohol
- Poor diet
- Insufficient sleep
- Lack of physical activity
- Little social activity and being alone most of the time

Smoking and Brain Health

Cigarette smoking is associated with worse cognitive performance among people 60 years and older independent of other medical issues like hypertension or diabetes.

Alcohol's Effect on Brain Health

- Slow or impaired communication among brain cells, even with moderate use
- Poor driving, slurred speech, fuzzy memory, drowsiness, dizziness
- Long-term changes to balance, memory and emotions, coordination, and body temperature

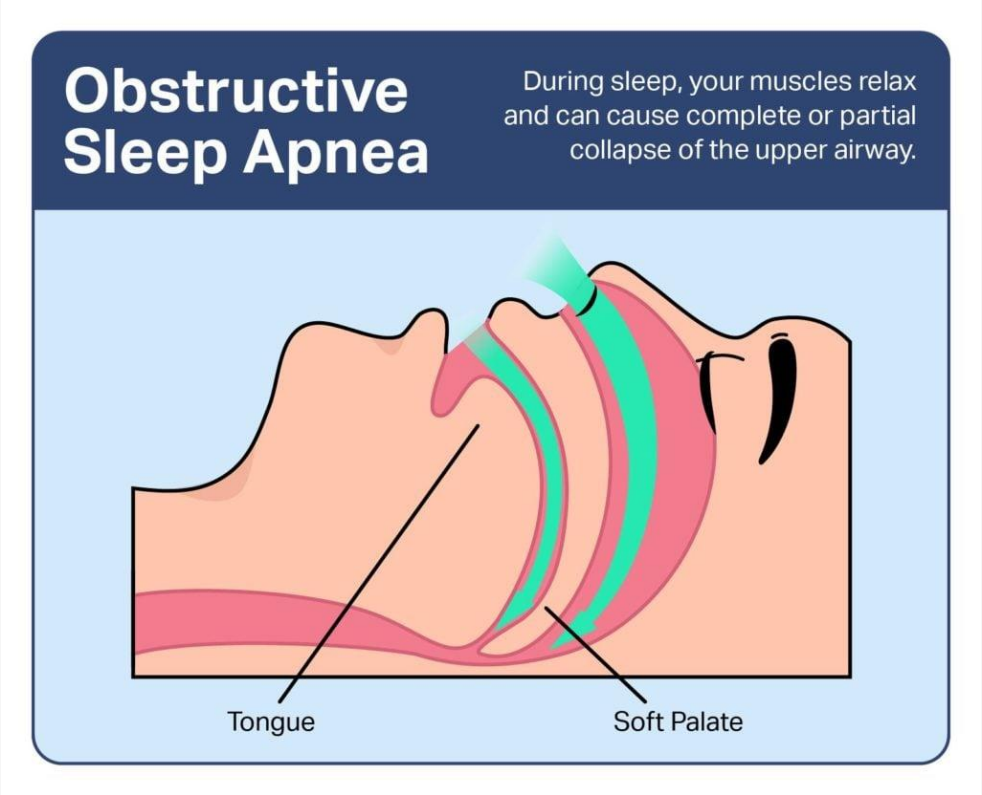
Other Potential Reversible factors

- Depression
- Sleep issues
- Thyroid problems
- Vitamin deficiencies

Depression

- Feelings of sadness or loss of interest in favored activities that last for weeks at a time
- Not a normal part of aging
- Some medicines can cause depression
- Confusion or attention problems caused by depression can sometimes look like dementia

- Treatment can involve therapy and medicine



Sleep Apnea

- Short pauses in breathing while sleeping
- Can lead to injury, high blood pressure, stroke, or memory loss, all of which can affect brain health
- Treatment begins with lifestyle changes, such as avoiding alcohol, losing weight, and quitting smoking
- Use of special devices, ordered by your doctor, may also help

Reducing the risk

New research shows there are things we can do to reduce the risk of mild cognitive impairment and dementia.

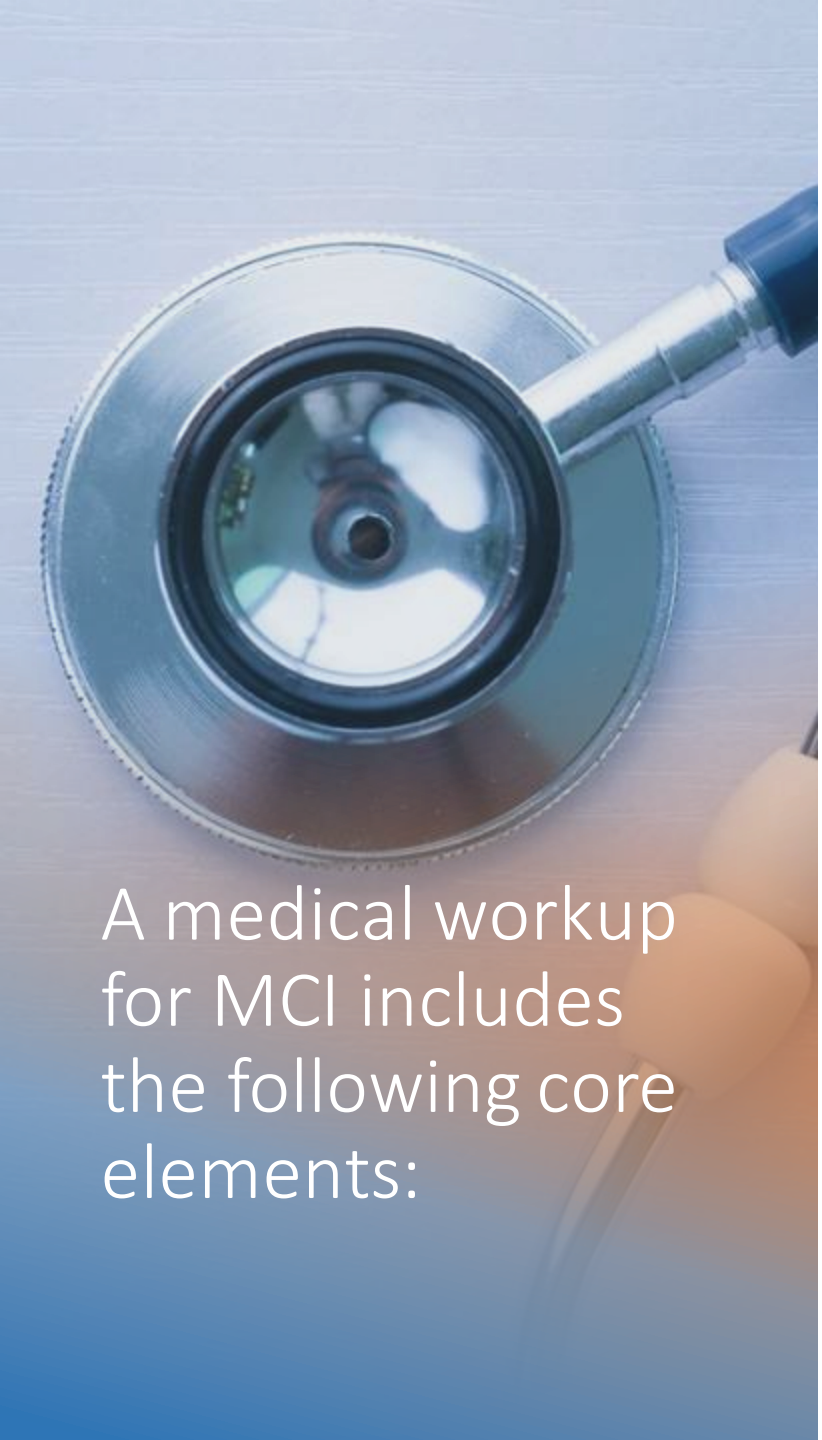
- Multiple healthy lifestyle choices, including healthy diet, not smoking, regular exercise and cognitive stimulation, may decrease the risk of cognitive decline and dementia.
- Research from clinical trials has demonstrated a significant reduction in the risk for developing mild cognitive impairment and dementia through the treatment of high blood pressure.

Diagnosis

Mild cognitive impairment is a clinical diagnosis representing a doctor's best professional judgment about the reason for a person's symptoms.

Why properly diagnose?

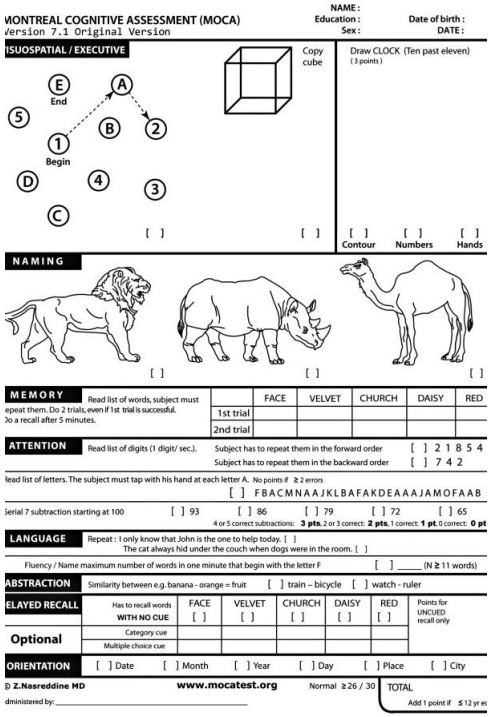
- There may be a readily treatable cause
- Some degenerative dementias do have symptomatic pharmacotherapies
- There are new clinical breakthroughs and medications rapidly becoming available for treatment and slowing down the progression of cognitive impairment
- Patients and families want to know and understand what they are dealing with
- Helps long-term planning
- Facilitates research efforts
- Facilitates advocacy/ support group participation



A medical workup for MCI includes the following core elements:

- Thorough medical history, where the physician documents current symptoms, previous illnesses and medical conditions, and any family history of significant memory problems or dementia.
- Assessment of independent function and daily activities, which focuses on any changes from a person's usual level of function.
- Input from a family member or trusted friend to provide additional perspective on how function may have changed.
- In-office neurological examination to assess the function of nerves and reflexes, movement, coordination, balance and senses.
- Laboratory tests including blood tests and imaging of the brain's structure.

Cognitive Screening



MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

NAME :
Education :
Sex :
Date of birth :
DATE :

VISUOSPATIAL / EXECUTIVE

Copy cube

Draw CLOCK (Ten past eleven) (3 points)

End
Begin

[ ] [ ] [ ] Contour [ ] Numbers [ ] Hands

NAMING

[ ] [ ] [ ]

MEMORY — Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial					
2nd trial					

ATTENTION — Read list of digits (1 digit/ sec.).
Subject has to repeat them in the forward order [ ] 2 1 8 5 4
Subject has to repeat them in the backward order [ ] 7 4 2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors
[ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B

Serial 7 subtraction starting at 100 [ ] 93 [ ] 86 [ ] 79 [ ] 72 [ ] 65
4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt

LANGUAGE — Repeat : I only know that John is the one to help today. [ ]
The cat always hid under the couch when dogs were in the room. [ ]
Fluency / Name maximum number of words in one minute that begin with the letter F [ ] ____ (N ≥ 11 words)

ABSTRACTION — Similarity between e.g. banana - orange = fruit [ ] train – bicycle [ ] watch - ruler

DELAYED RECALL

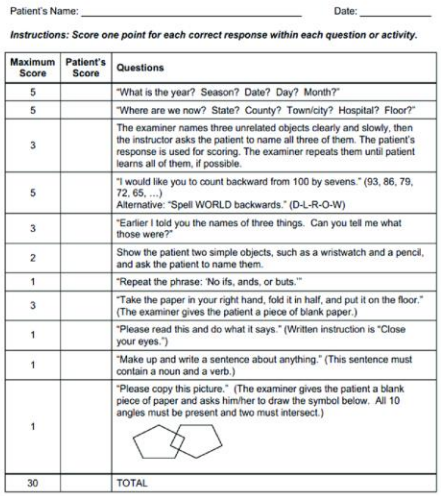
	Has to recall words WITH NO CUE	FACE [ ]	VELVET [ ]	CHURCH [ ]	DAISY [ ]	RED [ ]	Points for UNCUED recall only
Optional	Category cue						
	Multiple choice cue						

ORIENTATION — [ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City

© Z.Nasreddine MD www.mocatest.org Normal ≥ 26 / 30 TOTAL

Administered by: _____

Add 1 point if ≤ 12 yr ec



Patient's Name: _____ Date: _____

Instructions: Score one point for each correct response within each question or activity.

Maximum Score	Patient's Score	Questions
5		"What is the year? Season? Date? Day? Month?"
5		"Where are we now? State? County? Town/city? Hospital? Floor?"
3		The examiner names three unrelated objects clearly and slowly, then the instructor asks the patient to name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible.
5		"I would like you to count backward from 100 by sevens." (93, 86, 79, 72, 65, ...) Alternative: "Spell WORLD backwards." (D-L-R-O-W)
3		"Earlier I told you the names of three things. Can you tell me what those were?"
2		Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1		"Repeat the phrase: 'No ifs, ands, or buts.'"
3		"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1		"Please read this and do what it says." (Written instruction is "Close your eyes.")
1		"Make up and write a sentence about anything." (This sentence must contain a noun and a verb.)
1		"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.)
30		TOTAL

Assessment of mental status using brief tests designed to evaluate memory, planning, judgment, ability to understand visual information and other key thinking skills.

Commonly used cognitive screening tools include the Mini-Mental Status Examination (MMSE)2 and the Montreal Cognitive Assessment (MoCA

Depression Screening

Depression is widespread and may be especially common in older adults.

Table 6. 15-Item Geriatric Depression Scale

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life?	Yes/**No**
2. Have you dropped many of your activities and interests?	**Yes**/No
3. Do you feel that your life is empty?	**Yes**/No
4. Do you often get bored?	**Yes**/No
5. Are you in good spirits most of the time?	Yes/**No**
6. Are you afraid that something bad is going to happen to you?	**Yes**/No
7. Do you feel happy most of the time?	Yes/**No**
8. Do you often feel helpless?	**Yes**/No
9. Do you prefer to stay at home, rather than going out and doing new things?	**Yes**/No
10. Do you feel you have more problems with memory than most?	**Yes**/No
11. Do you think it is wonderful to be alive now?	Yes/**No**
12. Do you feel pretty worthless the way you are now?	**Yes**/No
13. Do you feel full of energy?	Yes/**No**
14. Do you feel that your situation is hopeless?	**Yes**/No
15. Do you think that most people are better off than you are?	**Yes**/No

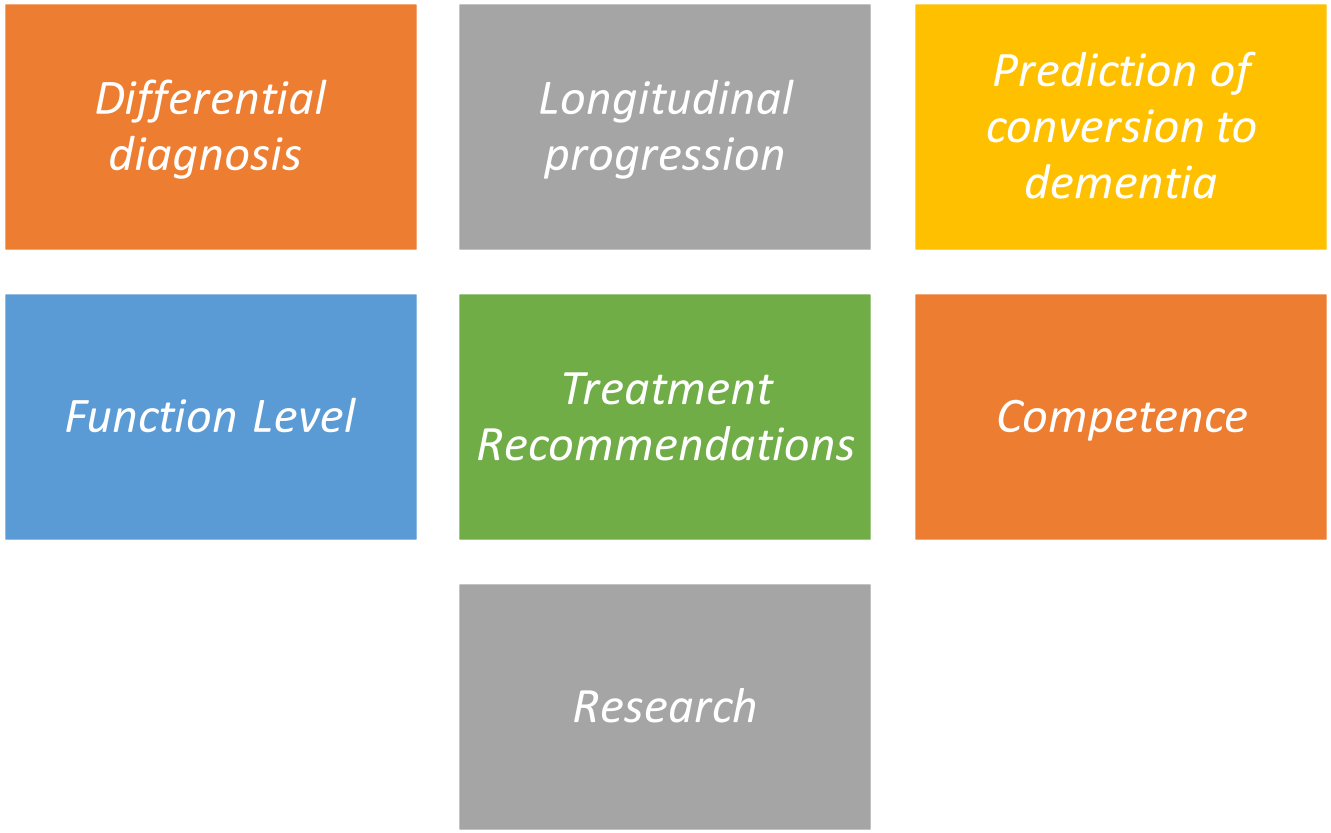
Reprinted with permission from Sheikh JI, Yesavage JA. Geriatric Depression Scale (GDS): recent evidence and development of a shorter version. In: Brink TL, ed. Clinical Gerontology: A Guide to Assessment and Intervention. *London, United Kingdom: Taylor & Francis; 1986:170.*

Additional scoring information from http://www.stanford.edu/~yesavage/GDS.english.short.score.html: Answers in bold indicate depression. More than five of these answers suggests depression and warrants follow-up.

When to refer for Neuropsychological Testing

- If the workup doesn't create a clear clinical picture, the doctor may recommend neuropsychological testing, which involves a series of written or computerized tests to evaluate specific thinking skills.
- The patient is younger than 65 years of age;
- The patient presents with a focal impairment that may not be adequately captured by general screening instruments (e.g., visuospatial abilities, behavior);
- The clinician suspects mild cognitive impairment (MCI) and would benefit from a detailed baseline assessment to track longitudinal progression.
- There is a need for intervention strategies to support safety and maximize independence.

Neuropsychological Evaluations for Dementia



Scope of a Neuropsychology Assessment

Comprehensive assessments assess multiple cognitive domains, and the scope of evaluations can vary depending on need

- Premorbid functioning – used to compare a person's current and expected level of performance
- Attention and concentration
- Sensory perception and psychomotor functioning
- Information processing speed
- Language and communication skills
- Visuospatial and constructional skills

- Learning and memory
- Intelligence (intellectual achievement)
- Executive functions
- Additional factors that can affect cognitive functioning, including mood, anxiety, personality, behavior, medications, effort and motivation

Assessment Instruments

- The assessment involves the administration of specialized tests that measure behavioral performance of brain functions (e.g., attention, memory, etc.)
- They are completed in a standardized fashion, involving two key principles:

Manualized Procedures

- There are standard protocols for the administration of each assessment
- This increases the chance that a score is representative of the individual's ability, and not the impact of other factors

Normative Data

- When assessments are complete, the individual's scores are referenced against normative data
- Norms represent a range of typical performance in a population of healthy individuals

The Assessment Process

- Assessment begins with a **Record Review**
- Sometimes this involves a great deal of useful information:
  - Past medical record
  - Results of prior assessments
  - Imaging
  - Specific details regarding behavioral and functional impairments

The Assessment Process

- The **Clinical Interview** typically covers
  - Referral information
  - Presenting complaints
  - Developmental history
  - Educational and vocational background
  - Psychosocial history
    - Medical history
    - Family history

  - Substance use and current medications
  - Current level of functioning

The Assessment Process

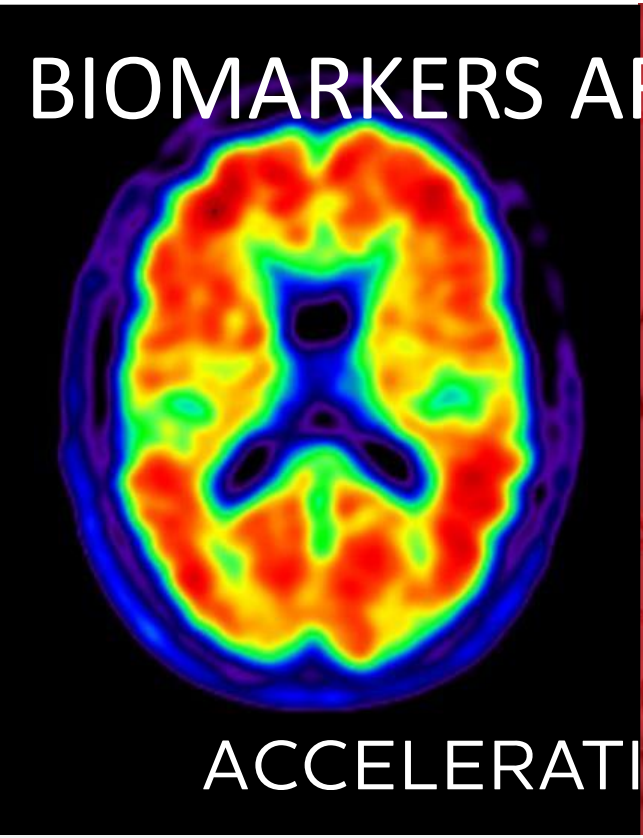
- **Standardized Testing** has two general approaches - fixed battery and flexible battery
- The **fixed battery** approach involves an exhaustive battery of standardized, co-normed tests that thoroughly cover every functional domain
- The **flexible battery** is a patient-tailored hypothesis testing approach, and involves selection of assessment instruments based on careful consideration of the referral question and impressions from the initial interview

NEUROPSYOLOGICAL EVALUATION RECOMMENDATIONS MAY INCLUDE…

Supervision/oversight required
Ability to make decisions/handle finances
Safety concerns
Use of compensatory devices
Referrals to aid with differential diagnosis
Accommodations for work
Diet, sleep, exercise, etc.
Psychotherapy support

The future is here: Lab work and imaging can shed light on diagnosis and treatment

BIOMARKERS ARE CHANGING THE GAME



ACCELERATING THE SPEED OF RESEARCH

Brain Imaging

Biofluid Analysis

Emerging Markers

alzheimer's association®

PROGRESS TOWARDS A BLOOD TEST

- Global race to uncover and develop blood-based biomarkers for Alzheimer's and other dementia
- More research validating amyloid beta and tau in blood by comparing to imaging and cognitive testing
- New research on blood tests for alpha synuclein and neurofilament light and other markers

TAU: ANOTHER BLOOD BIOMARKER EMERGES

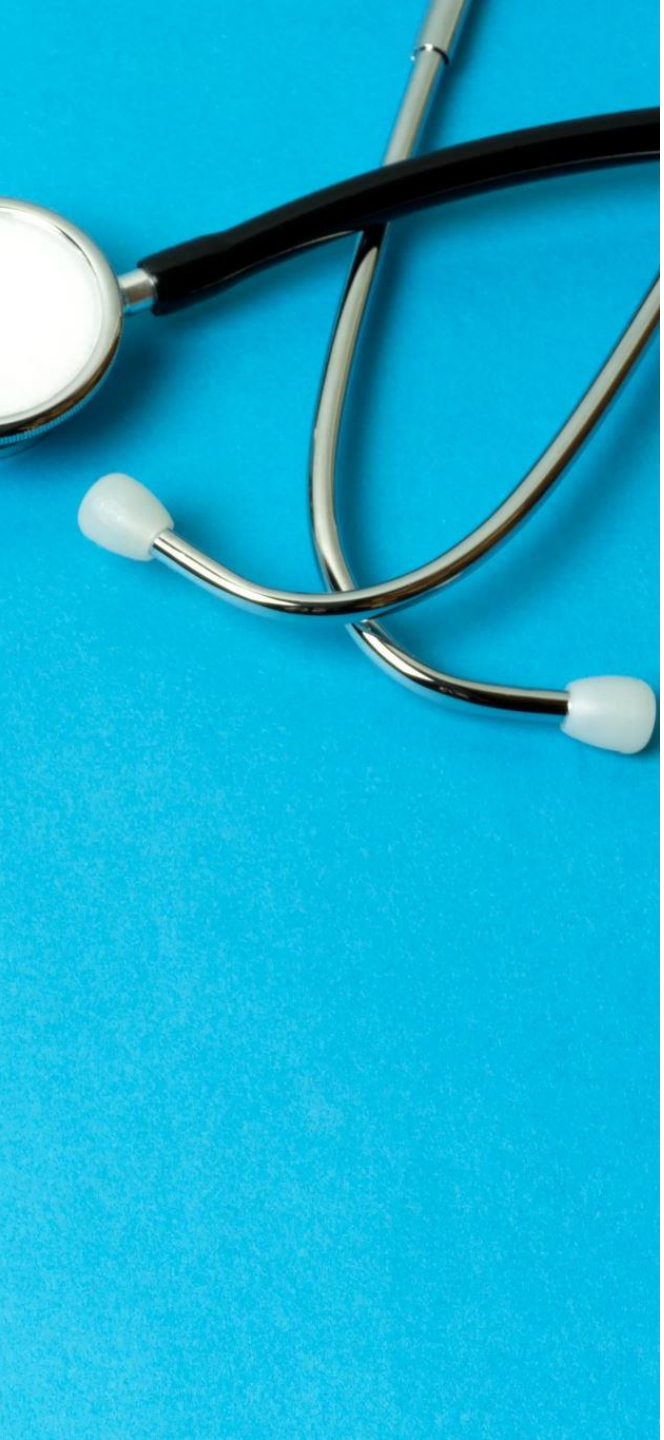
TANGLES
Research is looking at twisted proteins called tau tangles that build up inside cells and **may correlate more closely with cognitive decline than beta amyloid.**

PLAQUES
These amyloid protein deposits build up between brain cells in Alzheimer's disease.

Research suggests that a form of tau called p-Tau217 is very specific to Alzheimer's and, when measured in the blood, is highly accurate in distinguishing Alzheimer's from other neurodegenerative disorders.

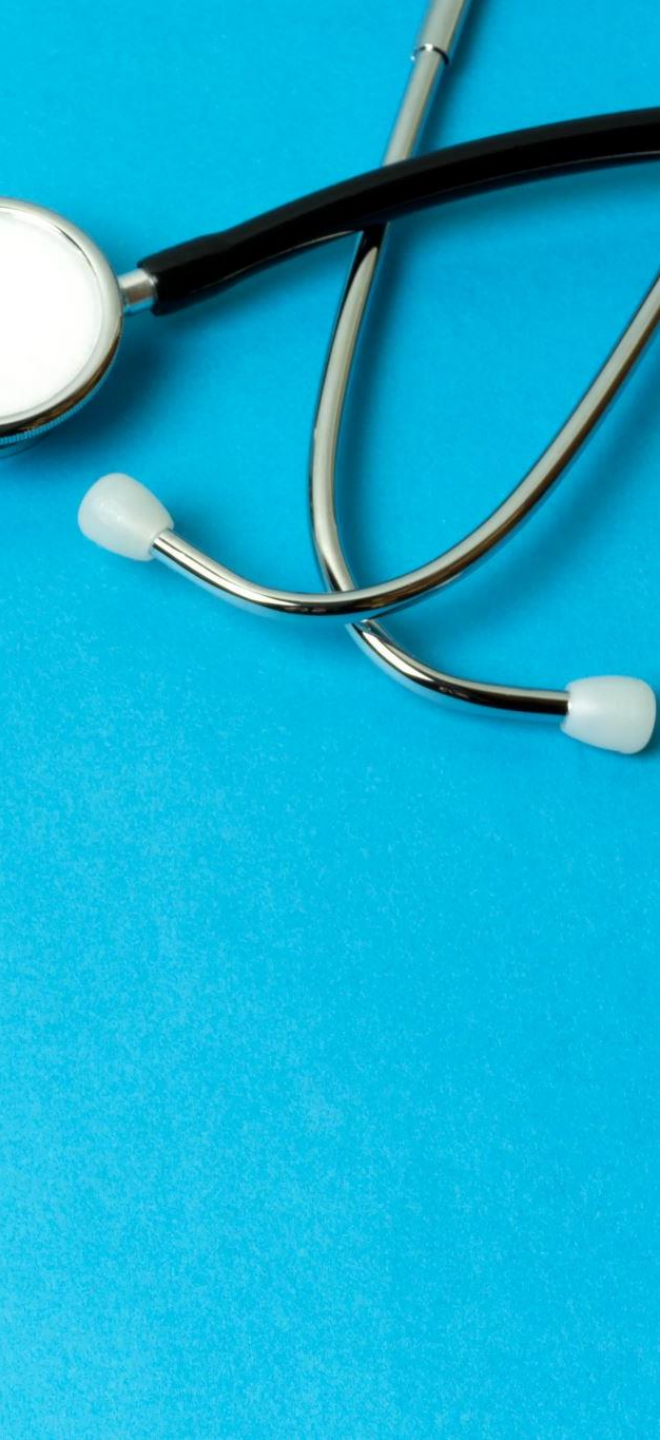
- **Differentiate Alzheimer's from other dementias**
- **Diagnose stage of disease**
- **Identify appropriate people for clinical trials**
- **Show changes 20 years before dementia symptoms arise**

While still in research stages, **blood tests are easier to administer and more accessible** than current methods of evaluating Alzheimer's



Barriers to treatment

- Most Americans are reluctant to see a doctor early if they have cognitive issues and tend to wait until the symptoms have a noticeable impact on their lives.
- The *2022 Alzheimer's Disease Facts and Figures* Special Report found that only 4 in 10 Americans would talk to their doctor right away when experiencing symptoms of MCI.
- Physicians are not taking the initiative to talk with patients either. Nearly all primary care physicians (PCPs) report waiting for patients (97%) or family members (98%) to make them aware of symptoms or request an assessment.
- A collective breakdown in communication about cognitive issues at any point in the patient journey is detrimental to care, especially in an era when treatments that alter the underlying biology of Alzheimer's disease could change the course of the disease if started early enough



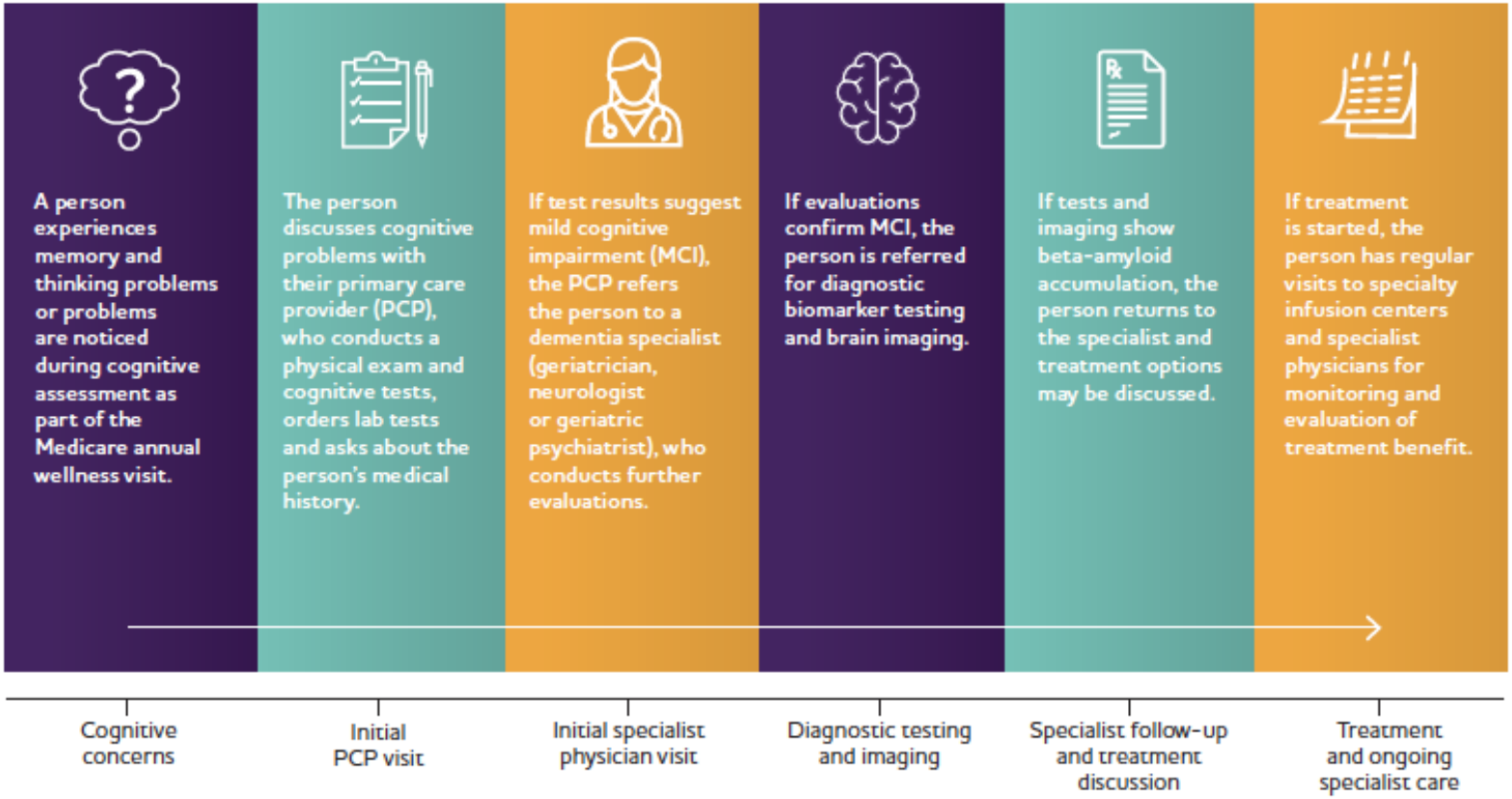
Barriers to treatment

These issues are exacerbated for certain racial and ethnic groups.

Black and Hispanic populations have a higher prevalence of dementia, but they also are less likely to receive a timely diagnosis, have more unmet needs, are more likely to experience high caregiving demands, and spend a higher share of their family assets on dementia care

Figure 17

Patient Journey from Awareness of Cognitive Issues to Care from a Physician Specialist and Treatment[655, 809]



Memory Disorder Clinics

- Memory clinics were first described in the 1980s. They have become accepted worldwide as useful vehicles for improving practice in the identification, investigation, and treatment of memory disorders, including dementia.

- A team of neurologists, psychiatrists, neuropsychologists, and other health-care professionals specially trained in diagnosing and treating memory disorders will perform evaluations for patients experiencing memory loss.

- In addition to diagnosing, clinics often have options to enroll in clinical trials, brain imaging studies utilizing MRI and PET scanning with state-of-the-art techniques and new radioactive tracers, genetic and family studies involving specific risk factors, and new approaches to make an early diagnosis of Alzheimer's disease

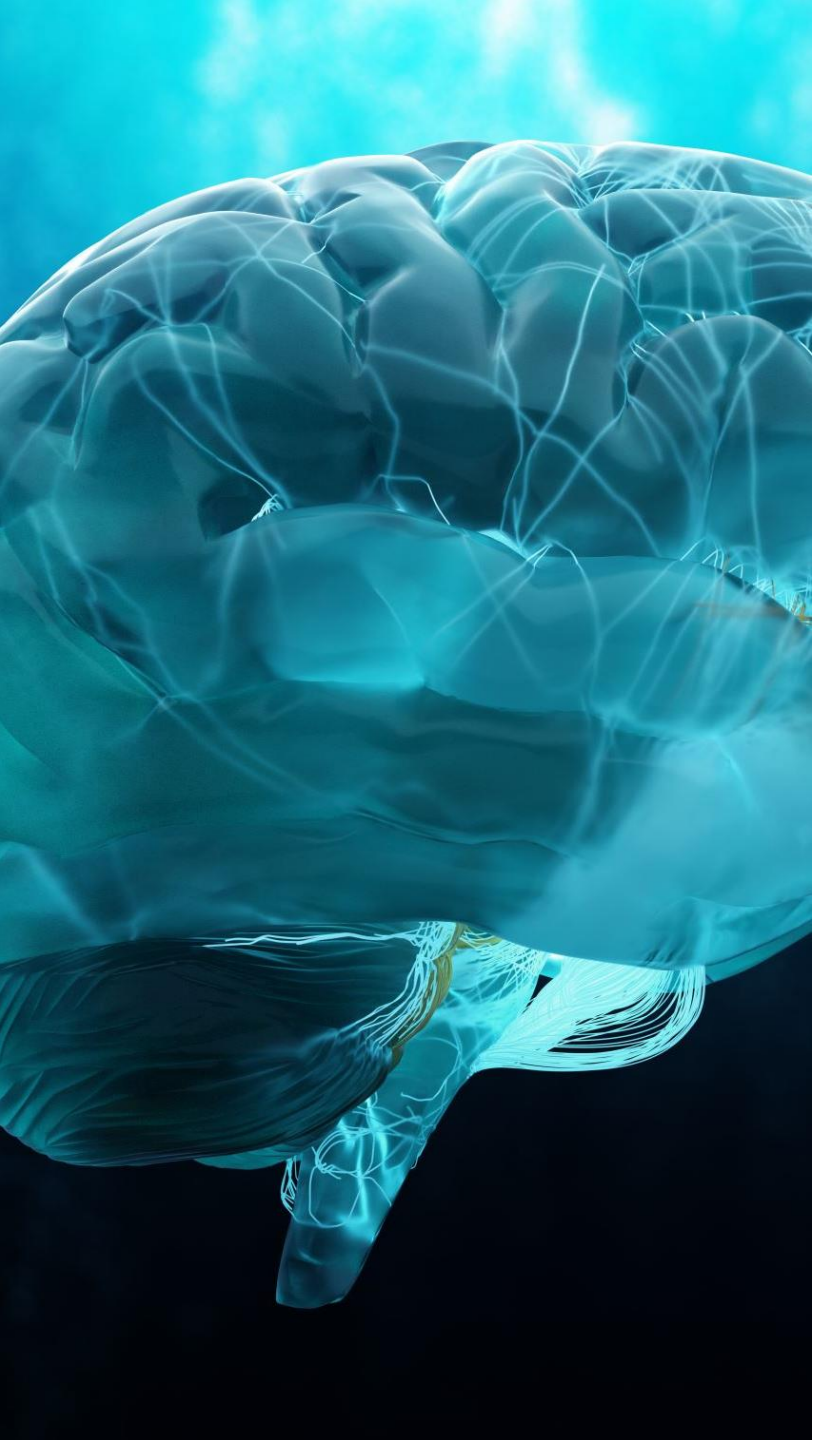
- There are at least 11 different memory clinics throughout Massachusetts including McClean Hospital, Mass General, Baystate, etc.

Treatments for Cognitive Impairment

- The U.S. Food and Drug Administration (FDA) has approved seven drugs for the treatment of Alzheimer's disease
- Five of these drugs — donepezil, rivastigmine, galantamine, memantine and memantine combined with donepezil — are aimed at improving symptoms by increasing the amount of chemicals called neurotransmitters in the brain.

Treatment for Cognitive Impairment

- Two of the new FDA-approved drugs — Aduhelm (aducanumab) and Leqembi (lecanemab) — are aimed at changing the underlying biology of the disease.
- They remove beta-amyloid from the brain and slow cognitive and functional decline in people living with early Alzheimer's.
- They were studied in and approved for use by people with early Alzheimer's disease — which includes people with MCI or mild dementia due to Alzheimer's disease — who also have evidence of a buildup of beta-amyloid in the brain based on brain imaging or CSF analysis.



Treatment for Cognitive Impairment

- A variety of other treatments targeting the underlying biology of Alzheimer's are in the research pipeline.
- They address many of the brain changes associated with Alzheimer's, including but not limited to tau accumulation, altered cell metabolism and inflammation.
- Treatments that address the full scope of Alzheimer's biology, not only beta-amyloid, are critical.

LANDSCAPE OF CLINICAL TRIALS FOR ALZHEIMER'S & DEMENTIA: DRUGS AND DEVICES *

Always a Need for Diverse Participants

** As of Apr. 2021*

Lawyers and Cognitive Decline

- Lawyers must rely on their memory, expressive language skills, and ability to concentrate for long periods of time. Even subtle changes in these capacities can impact a lawyer's ability to do their job and could lead to significant problems in the workplace.
- Lawyers are less likely to seek help for mental health and cognitive problems as compared to other professions due to fear, stigma, lack of resources, and shame.
- Lawyers struggle with maintaining healthy lifestyles and may place themselves at a higher risk for cognitive decline due to excessive drinking, smoking, lack of exercise and unhealthy diet leading to hypertension/diabetes.

Spotting signs of cognitive decline in lawyers

- Increasing memory loss, including forgetting appointments, social engagements
- Losing one's train of thought in the middle of a conversation; or dodging questions about remembering specific dates or events and instead telling tangentially related stories.
- Failure to use technology or forgetting how to use technology after being taught
- Forgetting deadlines, hearings or other important docket dates
- Missing meetings or calls despite them appearing on the calendar
- A decline in the lawyer's writing and oral argument abilities

Spotting signs of cognitive decline in lawyers

- Arriving to or leaving work at odd hours
- Forgetting colleagues' and clients' names
- Appearing disheveled
- Unexplained irritability and changes to mood or demeanor
- Falling or injuring themselves at work
- Significant and rapid weight loss or gain
- Increasingly becoming more impulsive, showing poor judgement, and having trouble moving around familiar places.
- Increasingly appearing overwhelmed by making decisions, making plans, or understanding instructions

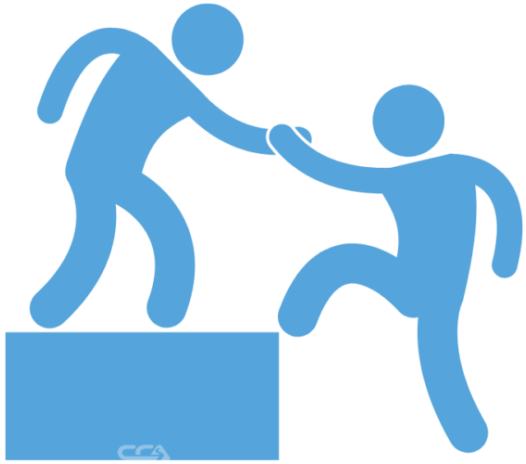
RESISTANCE TO THE CESSATION OF PRACTICE

- Many times, a lawyer's identity is directly related to their title, their employer and their profession. Being a lawyer is a significant portion of their personal identity, and it is more than just a job or career. Walking away from that can be a scary proposition.
- Even in the face of a formal diagnosis of dementia or Alzheimer's, an impaired lawyer may be in denial and may continue to believe they are still functioning enough to continue to practice.
- There may also be a real or perceived financial need to continue practicing to support themselves or their family. Sometimes the problem of cognitive decline is ignored until it is too late, and the problem leads to an ethics or malpractice claim that must be addressed.

How can I help a colleague who is struggling with cognitive impairment?

- Noticing cognitive decline in our colleagues is one thing, but doing something about it is another. It is a tricky, sensitive and difficult subject to broach.
- It is often easier to get involved in cases of substance abuse or mental health problems because that can mean saving someone's career.
- In the case of progressing dementia, intervening often means ending one's career. Nonetheless, it is crucial to have the uncomfortable conversations and make the hard decisions.
- Approaching a colleague from a place of concern and not of confrontation is a better approach. Also, leaving out your suspicion of certain specific diagnoses, such as "dementia," is recommended
- It is far better to approach someone before it becomes a malpractice or professional responsibility issue for them.

How can I help a colleague who is struggling with cognitive impairment?



- Encourage the person to seek medical help – starting with the PCP to see if they are having any health issues that may be impacting their memory and potentially reversing or decreasing cognitive impairment.
- With a medical diagnosis, the person will be better able to organize financial matters, establish a durable power of attorney and advance health care directives, deal with other legal issues, create a support network, and even consider joining a clinical trial or another research study.
- For a legal professional with signs of cognitive impairment, early diagnosis affords the attorney an opportunity to participate in decisions, such as appointing a successor attorney or closing the law practice, rather than waiting until such arrangements become the responsibility of colleagues or family members.
- A lawyer with more severe forms of dementia may want to consider limiting or ending their law practice while they are still capable of doing so. Support your colleague by helping them find professional help to close their practice to ensure they are following the state ethics rules.