



Preventing and Reversing
MEMORY LOSS

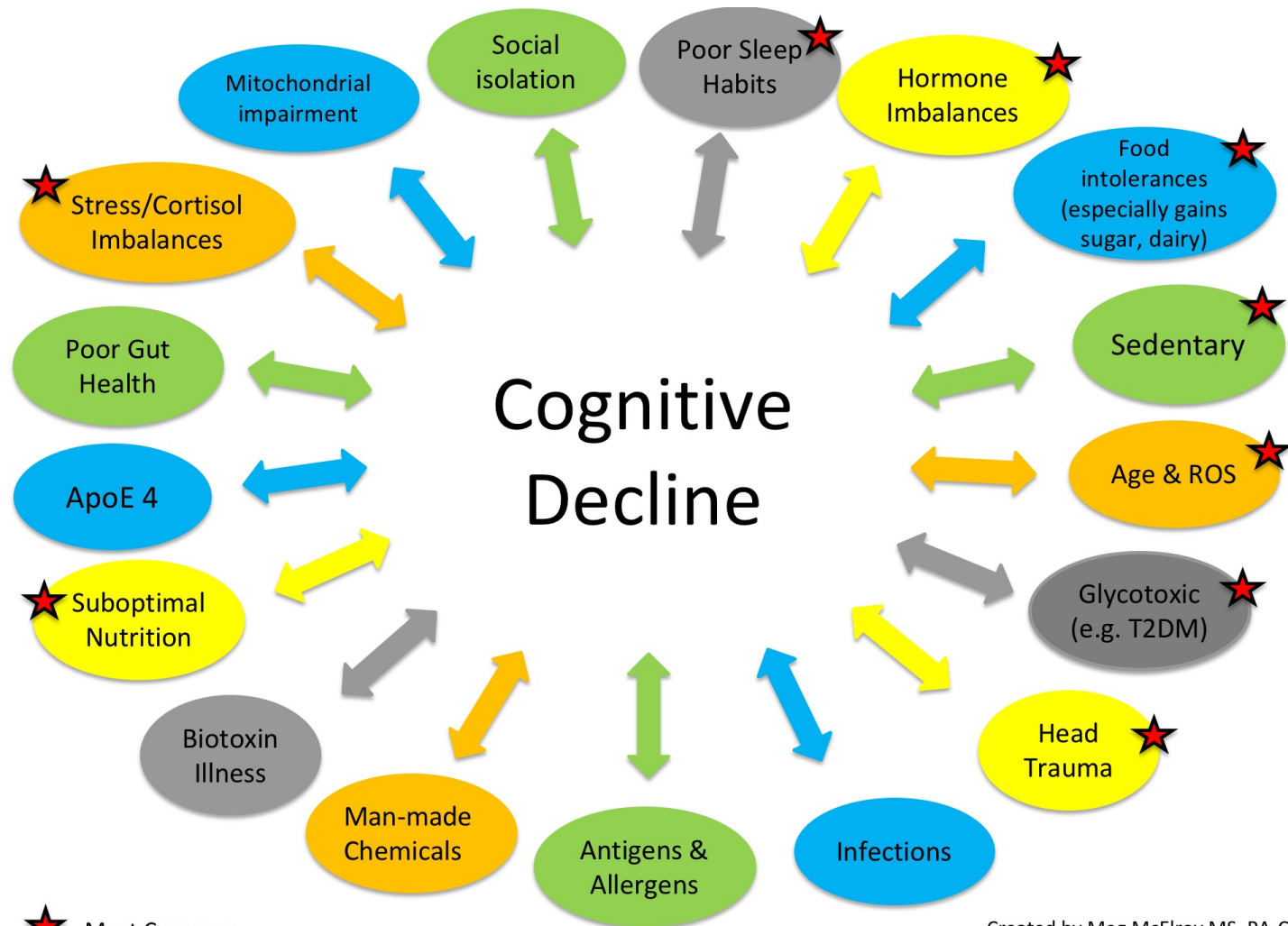
Aka “cognitive decline”

Meg McElroy MS, PA-C
Presented by Dr. Weiss

Challenges in Diagnosing Cognitive Decline

- So many factors
- So many different diagnoses





COGNOSCOPY:

“..the combination of blood tests, genetic tests, simple online cognitive assessment, and MRI with an automatic computer assessment of brain volumes provides crucial clues to what is causing cognitive decline or putting you at risk for it.”

-Dr. Dale Bredezen (The End of Alzheimer's)



Thorough Past Medical History

- a) Chronic sinusitis
- b) History of Head trauma
- c) Alcohol
- d) Oral health
- e) General anesthesia
- f) Hormonal health
- g) Sleep history
- h) Exposure to toxins
- i) Common medication (“dementigens”)
- j) Diabetes
- k) Other?.....



Mini-Cog (takes <5 minutes, doesn't evaluate language)

MoCA (Montreal Cognitive Assessment): Best test for MCI (score 19-26)

ACE-R: Most Sensitive, but takes up to 20 min

MONTREAL COGNITIVE ASSESSMENT (MOCA)					NAME: _____	Date of birth: _____
VISUOSPATIAL / EXECUTIVE					Sex: _____	DATE: _____
					Copy cube	Draw CLOCK (Ten past eleven) (3 points)
					<div style="display: flex; justify-content: space-around;"> [] [] </div>	
NAMING					<div style="display: flex; justify-content: space-around;"> [] [] </div>	
MEMORY					[]	
Read list of words, subject must repeat them. Do 3 trials. Do a recall after 5 minutes.					FACE	VELVET
					CHURCH	DAISY
					RED	No points
					1st trial	
					2nd trial	
ATTENTION					[]	
Read list of digits (digit/sec).					Subject has to repeat them in the forward order.	
					Subject has to repeat them in the backward order.	
					<div style="display: flex; justify-content: space-between;"> [] 2 8 5 4 [] 7 4 2 </div>	
Read list of letters. The subject must tap with his hand at each letter if it is present in the backward order.					<div style="display: flex; justify-content: space-between;"> [] FRACMNAAIKLBAFAKOEAAAIJAMOFABA [] </div>	
Serial subtraction starting at 100					<div style="display: flex; justify-content: space-between;"> [] 93 [] 86 [] 79 [] 72 [] 65 </div>	
					<div style="display: flex; justify-content: space-between;"> 4 correct 3 subtractions 3 pts. 2 correct 2 pts. 1 correct 1 pt. 0 correct 0 pt. </div>	
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					<div style="display: flex; justify-content: space-between;"> [] train - blythe [] watch - ruler </div>	
					<div style="display: flex; justify-content: space-between;"> (N is words) [] </div>	
ABSTRACTION					[]	
Similarity between: g. banana - orange = fruit						
With NO CUE					FACE	VELVET
					CHURCH	DAISY
					RED	Points for PHONO recall only
Category test						
Multiple choice test						
ORIENTATION					[]	
Date					[]	[]
Month					[]	[]
Year					[]	[]
Day					[]	[]
Place					[]	[]
City					[]	[]

© 2 Neuropsychol Med, Version November 7, 2004

www.mocostest.org

Normal = 26 / 30

TOTAL

Add 1 point if < 12 or > 30

ADDENBROOKE'S COGNITIVE EXAMINATION – AC-II

English Version A (2012)

Name: _____ Date of Birth: _____ Hospital No. or Address: _____	Date of testing: _____ Tester's name: _____ Age at testing full-time education: _____ Occupation: _____ Handwritten: _____
---	--

ATTENTION

Ask: What is the	Day	Date	Month	Year	Season	Alertness (Score 0-4)
Ask: Which	No./Floor	Street/Hospital	Town	County	Country	Attention (Score 0-5)

ATTENTION

* Test: "I'm going to give you three words and I'd like you to repeat after me: lemon, key and ball." After second repeats, say "Try to remember them because I'm going to ask you later". * Score only the first that repeated 3 times (if necessary). * Register number of trials. _____	Attention (Score 0-3)
---	--------------------------

ATTENTION

* Ask the subject: "Could you take 7 away from 100? I'd like you to keep taking 7 away from each new number until you feel like to stop." * If subject makes a mistake, do not stop them. Let the subject carry on and check subsequent answers (e.g. 93, 86, 77, 70, 63 – score 4). * Stop after five substractions (93, 86, 78, 72, 65) _____	Attention (Score 0-4)
---	--------------------------

MEMORY

Ask: "Which 3 words did I ask you to repeat and remember?" _____	Memory (Score 0-3)
--	-----------------------

FLUENCY

* Letters Say: "I'm going to give you a letter of the alphabet and I'd like you to generate as many words as you can beginning with that letter, but not names of people or places. For example, if I give you the letter "C", you could say: cat, cow, ice cream, etc. But you can't say: Charles, California or California." Do you understand? Are you ready? You have one minute. The letter I want you to use is the letter "P".	Fluency (Score 0-10)
---	-------------------------

	0-3 0-4 0-5 0-6 0-7 0-8 0-9 0-10
--	---

Animals

Say: "Now can you name as many animals as possible. It can begin with any letter."	Fluency (Score 0-10)
--	-------------------------

Patient and Spouse/Family Reported Symptoms

- Loss of important information that he or she would previously have recalled easily. (Exp. Appointments, conversations or recent events.)
- Loss of the ability to make sound decisions, judgement in time or not knowing how to complete a complex task from start to finish
- Loss in visual perception
- Increasingly overwhelmed by making decisions, planning, or interpreting instructions
- Impulsiveness or increasing poor judgement
- Depression, anxiety, apathy, irritability and aggression

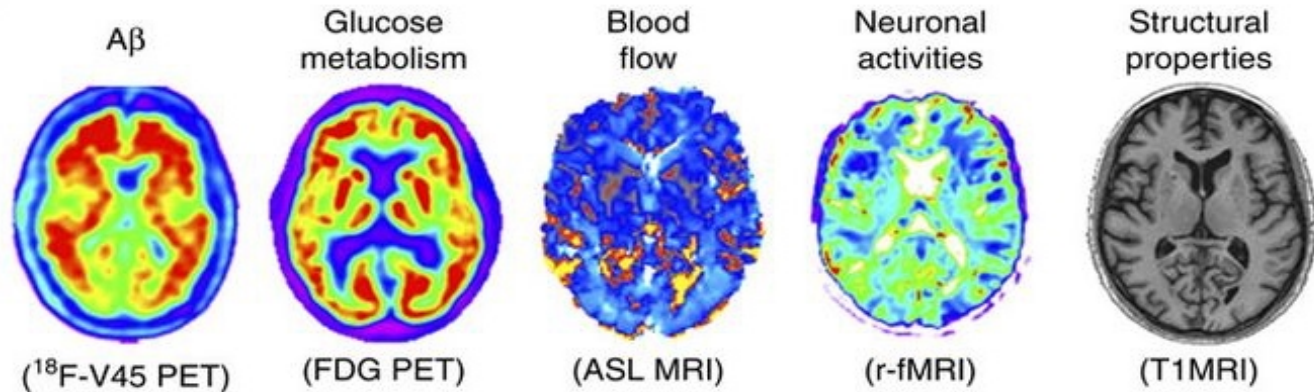


Tests

- **Neurological exams** – reflexes, eye movements, walking and balance
- **Lab tests**- Blood test (helps rule out physical issues that effect memory, B12 deficiency or underactive thyroid gland)
- **Brain Imaging** - MRI or CT scan (to rule out brain tumor, stroke or bleeding)
- **Mental Status testing** - 10 minute short forms for mental status. Also questions, tasks, following written instructions. Longer forms can help with additional information about mental function

Imaging...

- Dr. Alan Evans 2016 Paper: First physiological sign of AD is a **decrease in blood flow to the brain**, not an increase in amyloid protein
- 7,700 brain images from 1,171 people with various stages of AD progression (MRI and PET, blood/CSF, subject's level of cognition)

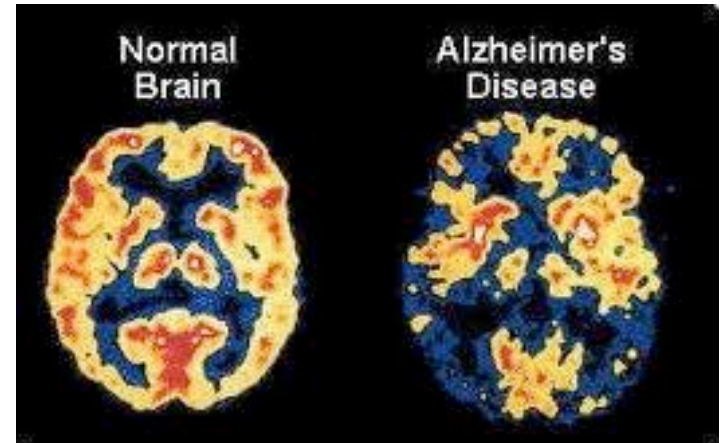


Iturria-Medina Y, et al. Early role of vascular dysregulation on late-onset Alzheimer's disease based on multifactorial data-driven analysis. Nat Commun. 2016;7:11934.

Imaging...

- MRI with NeuroQuant
 - Write “with NeuroQuant” next to “MRI of brain” (no contrast)
 - CPT code 76377
 - Amyloid PET or FDG PET
 - SPECT (in place of PET)

MRI with NeuroQuant



Neuropsychological Evaluation

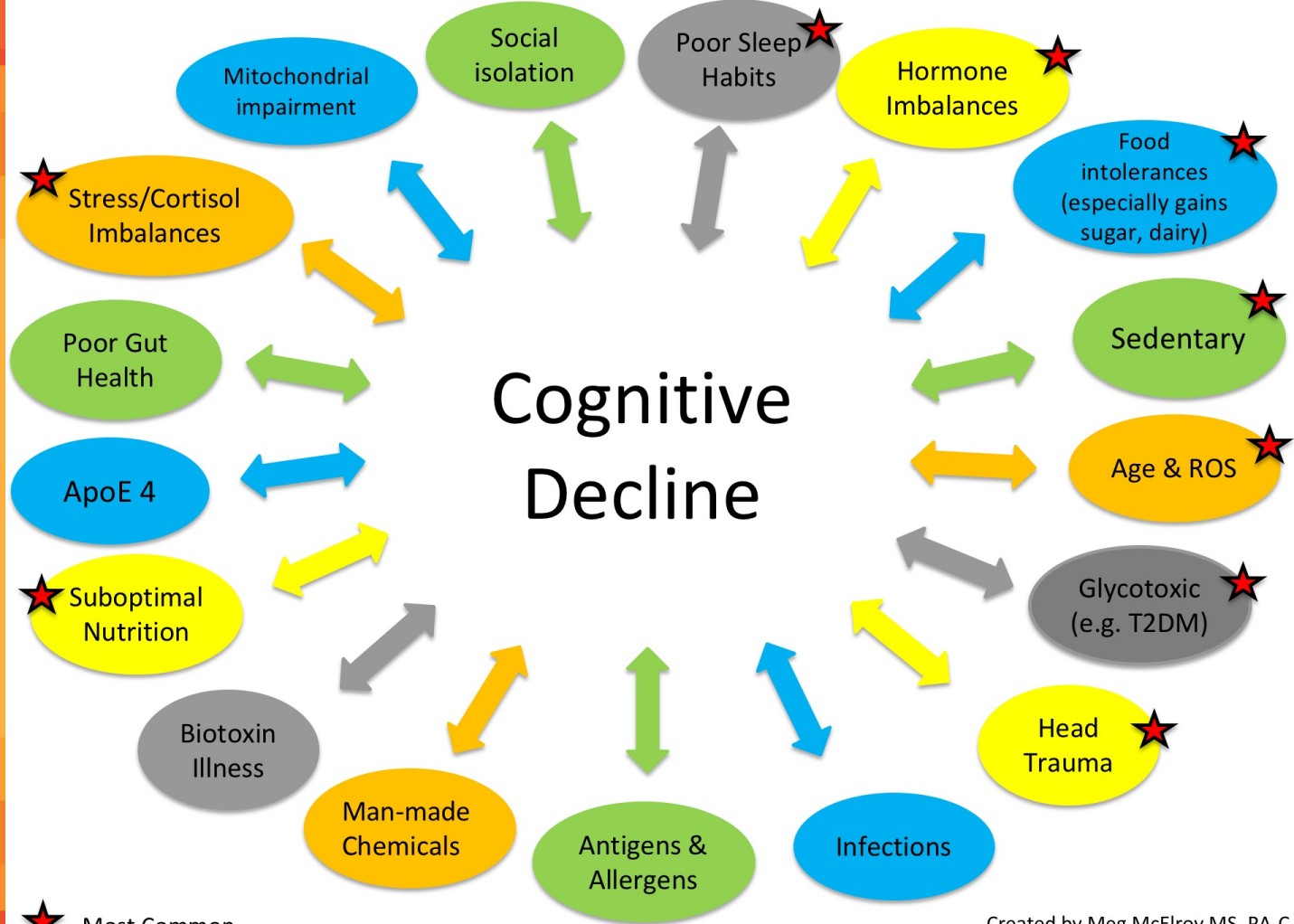
- If cognitive screening is abnormal, a more detailed evaluation is recommended with a neuropsychologist

Attention and processing speed
Motor Performance
Mood, Temperament
Judgement/Problem Solving
Abstract Thinking
Executive Functions
Language
Visuospatial Analysis
Working, Learning Memory

Thank You

**Comments or suggestions?
Please Take Our Survey**





★ Most Common



mmLearn.org
FREE caregiving education



Preventing and Reversing
Cognitive Decline

Meg McElroy MS, PA-C

Presented by Dr. Weiss

mmLearn.org
FREE caregiving education

To watch the full version of



Preventing and Reversing Cognitive Decline



GO TO

mmLearn.org
FREE caregiving education

Thank You!