

## **Optimizing Brain Fitness**

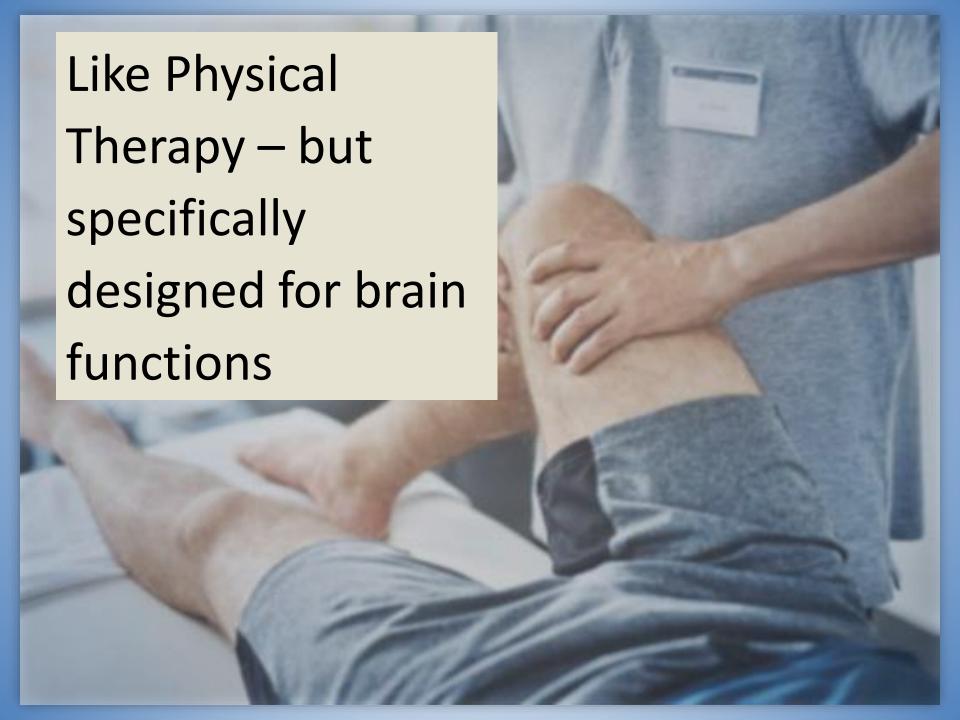


#### Jen Beyst

Co-Creator – CFDT Co-Founder – CFDI

#### Kate Delafield

CFD Master Team Lead – Polara Health



- Cognitive decline was genetic, inevitable, and irreversible.
- There is little besides diet and exercise that a person can do to stave off dementia or Alzheimer's

Aging Old
School



## The Current Science

 Cognitive vitality can be maintained and improved

 Cognitive development can help reduce and slow the symptoms of dementia and Alzheimer's



#### **Debunking Myths**

"[The brain] responds to use and disuse by either growing and remaining vital or decaying, and thus, for the first time, we are learning to see mental weaknesses as *physical* systems in need of training and practice."

—Dr. John J. Ratey, Harvard Medical School, A User's Guide to the Brain

## What is responsible for the change?

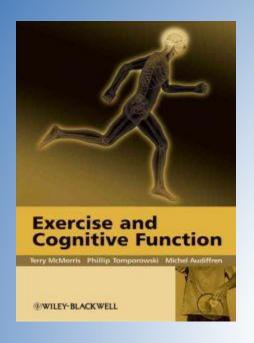
London Cabbie Study



"We have seen directly and within individuals how the structure of the hippocampus can change with external stimulation."

# 5 Key Elements For Brain Fitness

- 1. Regular Physical Exercise
- 2. Proper Brain Boosting Diet
- 3. Thought Life Management
- 4. Adequate Sleep
- 5. Deliberate Brain Exercise



## Physical Exercise

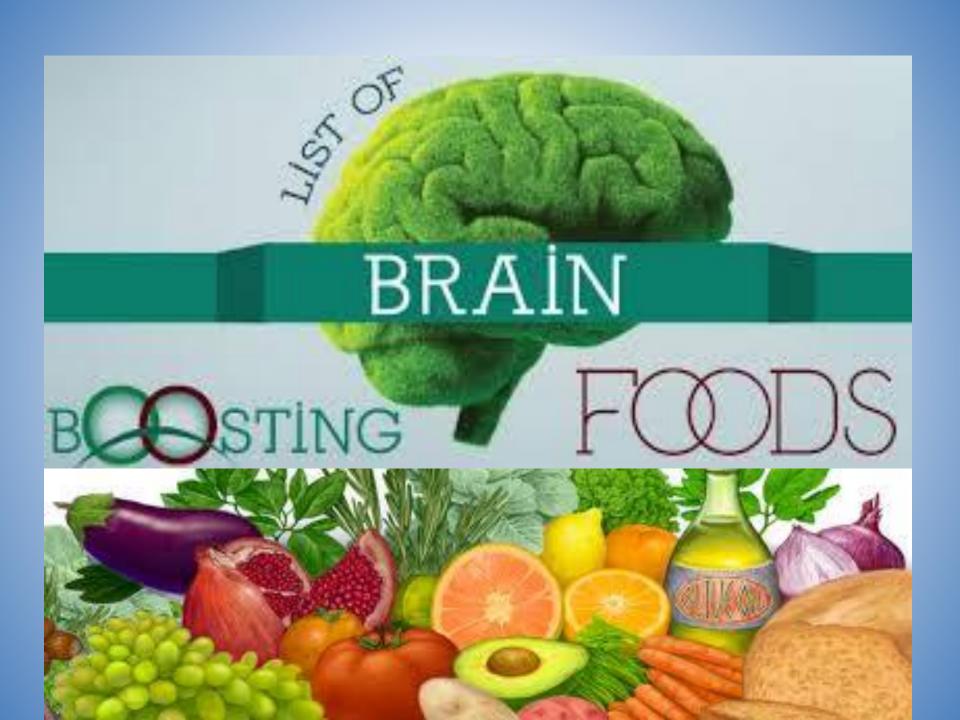
"Exercise is the most effective way to improve memory and attention... exercise seems to protect against memory disorders like Alzheimer's. People who exercise regularly are 50% less likely to develop dementia. When we exercise, new brain cells are born in the hippocampus- the brain's gateway to new memories.

Karen Postal, PhD

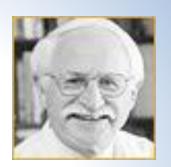
Studies also show that immediately following exercise, problem solving, memory, and attention improve.



www.KarenPostal.com



B vitamins and cognitive efficiency



Dr. Aron Troen

Dr. Irwin Rosenberg



## Omega-3's, Vitamin D



Ernst Schaefer
HNRCA research and Vitamin D

## Proper Hydration

According to the Mayo Clinic, the average adult loses more than 80 ounces of water every day through sweating, breathing, and eliminating wastes.

Mental symptoms of dehydration can include

- Depression
- Afternoon fatigue
- Sleep issues
- Inability to focus
- Lack of mental clarity, sometimes referred to as "brain fog."



#### **Drink Water!**

Studies show that you only need to be 1% dehydrated to experience a 5% decrease in cognitive function.

A 2% decrease in brain hydration can result in short term memory loss and trouble with math computations.

Prolonged dehydration causes brain cells to shrink in size and mass, a condition common in many elderly who have been dehydrated for years.

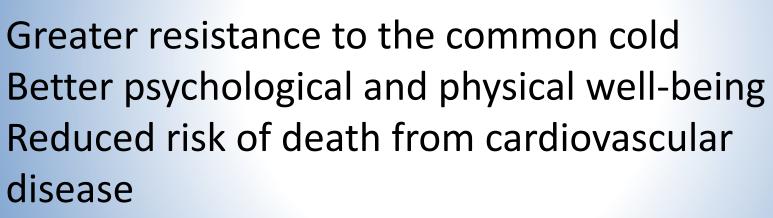


#### **A Positive Thought Life**

Increased life span

Lower rates of depression

Lower levels of stress



Better coping skills during times of stress

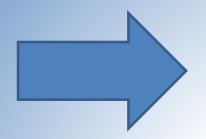


#### Smile!



current evidence demonstrates that spontaneous laughter is associated with greater reduction in cortisol levels as compared with usual activities, suggesting laughter as a potential adjunctive medical therapy to improve well-being.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10204943/



## Get Adequate Sleep



#### NATIONAL HEALTHY SLEEP AWARENESS PROJECT



## Targeted Brain Exercise

# COGNITIVE FUNCTION DEVELOPMENT

## **5 Primary Cognitive Functions**



Attention Networks

Encoded Memory

Working Memory

#### **Brain Activities for Brain Fitness**

- Add fun time pressure
- Create new, exciting rules!
- Focus on the skill you want to improve
- Change it up!
- Keep it positive
- Use rhythm for automaticity
- Don't just do what you're good at!



## **Attention Networks**

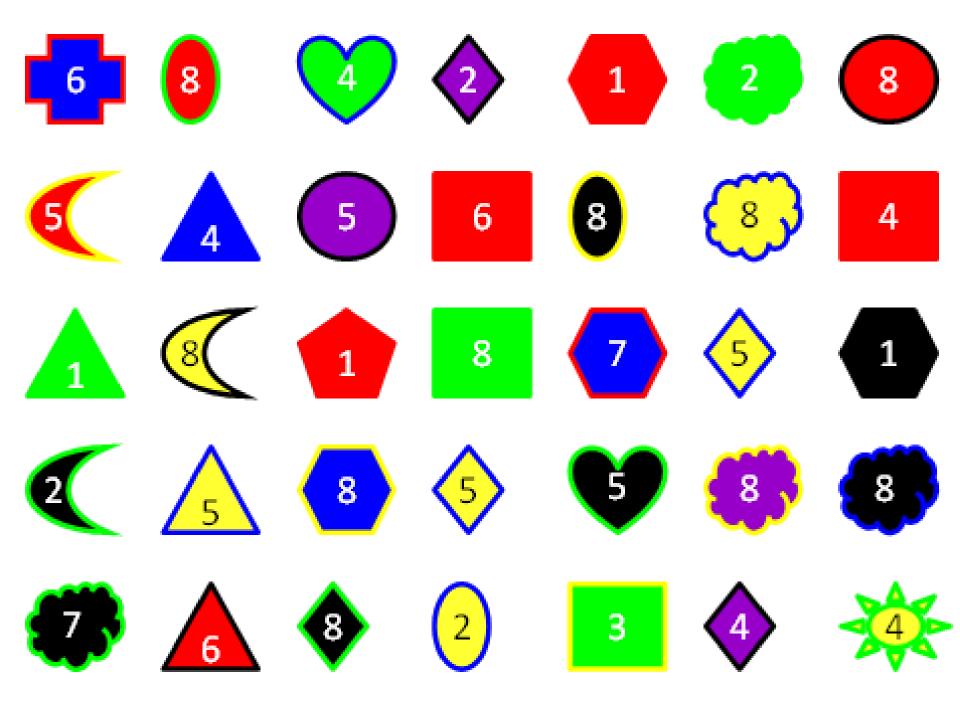
- Alerting
- Orienting
- Executive



Noticing salient information – determining what is relevant – prioritizing the selected information

#### Color Word

Yellow	green	Black	blue	Black
Black	Yellow	green	* Yellow	green
Purple	red	* red	Black	red
blue	* green	green	Yellow	blue
Black	Purple	Yellow	blue *	Yellow
blue	blue	Yellow	red	Yellow

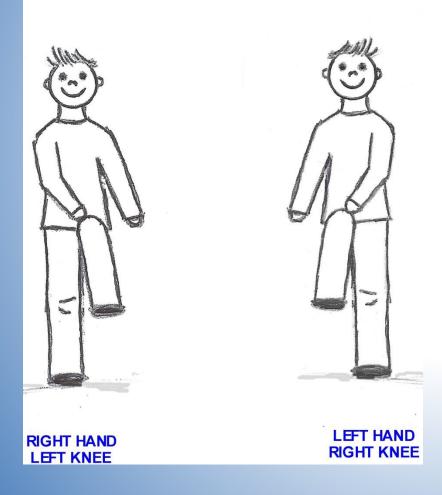




## Memory

#### Kinesthetic Recall

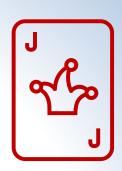
#### THE CROSS CRAWL





#### **Cross-body Cards**

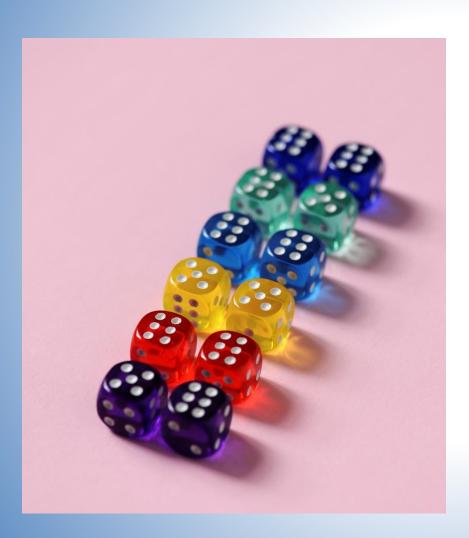
Red Card – Touch Right Shoulder



Black Card – Touch Left Shoulder



### Sort



- Use Timer
- Calculate the value
- Create patterns



## Spot It!

- Speed
- Memory
- Focus

#### Find the Match



#### **Find 6 Matches**







Find 6 Matches



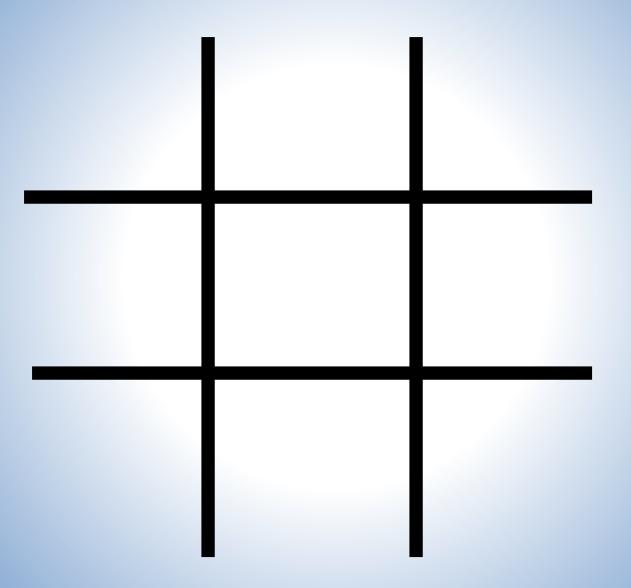


## Name all the matches from the last 4 slides.

- Baby bottle
- Baby bottle
- Baby bottle
- Baby bottle
- Ice cube
- Yin yang
- Scissors

- Rainbow
- Stop sign
- RV trailer
- Men working sign
- Cement truck
- American flag

## Tic Tac Toe



2	Number Columns	6
0	1	1
4	6	3
8	3	2
7	0	0
6	2	4
3	4	7
1	8	5
5	5	8
	7	

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## Cognitive Function Development

- Target lowest functions
- Fun-inducing
- Intensive
- Frequency
- Sufficient duration



#### The Process

Objective Assessment

Creyos
Cognitive
Assessments

Orientation session

(program overview for client and family)

Meet for 2 sessions a week

Progress Assessment at

12-week intervals

Ages 6 and above

One-to-One sessions

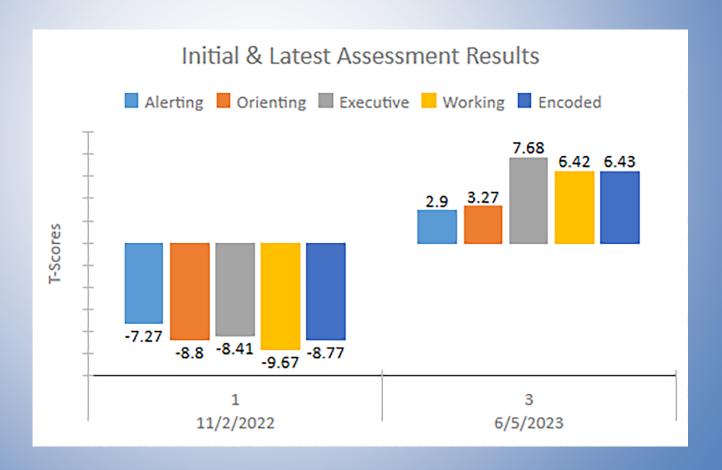
From 3 to 12 months

**Energizing and Encouraging** 

#### **Comparison Reporting**

80 yr old with Social Anxiety Disorder

53 sessions



#### Questions?

Jen Beyst

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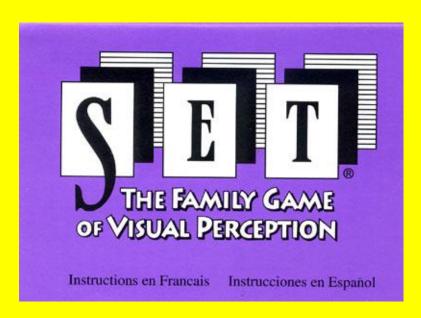
928-848-9766

Kate Delafield

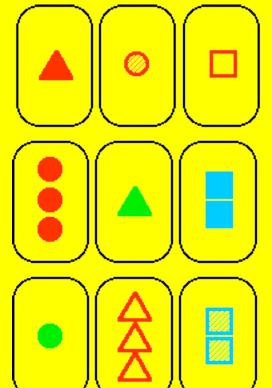
**CFD Master Team Lead** 

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#### 4 Characteristics



Number: Matching (1)
Colour: Matching (red)
Shape: All different
Fill: All different

Number: All different Colour: All different Shape: All different Fill: Matching (solid)

Number: All different Colour: All different Shape: All different Fill: All different

