### **ENRICH Your Brain Health**

Presented by:

Maria M. Evile, LCPC

Program Manager at The BCAT

## Why does cognitive assessment matter?

### Dementia Risk Factors

The 30,000 Foot View

- Approximately 25% of all people in the United States aged 55 years and older have a family history of dementia.
- In very general terms, people aged 55 years and older have a 10% risk of developing dementia before age 85.

### **Dementia Risk Factors**

The importance of first-degree biological relatives

- Having a first-degree biological relative (parents, children, or siblings) may at least double this risk.
- Studies show that Caucasians with a first-degree biological relative who has or had dementia have between a 20% and 25% risk for developing dementia by age 85.
- Information for the corresponding risks for ethnic minorities is less clear, but the risk may be as high as 40% for African Americans.



### The Cognitive Continuum

- Cognition is a "vital sign"
- Cognition is at the center of our experience
- Cognition consists of multiple domains
- The three major cognitive functioning stages:
  - Normal
  - Mild Cognitive Impairment
  - Dementia



# The BCAT



### The Brief Cognitive Assessment Tools (BCAT)

- Several development and validation studies
- 10-15 minutes to administer
- Full, Contextual Memory Factor, Executive Functions Factor scores
  - CMF: current verbal memory skills; predictive of IADLs
  - ECFF: higher order skills, such as judgment, problem-solving, and reasoning; correlation between ECFF and predicting everyday activities of daily living
- Interactive website scoring program with test report



# The ENRICH® Program

# Designed for Adults and Older Adults Who Want to Lower Their Risk of Dementia

Lower Your Dementia Risk Now!

www.ENRICHvisits.com

## The **Good** News

### You Can Lower Your Risk of Dementia

- A number of brain-healthy behaviors have been identified that can lower risk of dementia.
- The ENRICH® Program is based on a 4-step approach that uses the best available science to improve cognitive functioning and lower dementia risk.

# What is the Brain-healthy ENRICH® Program?

The Four Steps of ENRICH®

- Understanding the six brain-healthy habits to lowering dementia risk.
- 2. Using the ENRICH® Calculator to determine your risk.
- 3. Assessing your current cognitive functioning.
- Using the right tools to improve your cognitive health and lower dementia risk.



# STEP ONE

Understanding the Six Brain-healthy Habits to Lowering Dementia Risk

## The Six Brain-healthy Habits of ENRICH®

Exercise daily (physical)

No smoking

Routinely add cognitive stimulation that is challenging

Improve mood

Control hypertension and heart rate

Healthy weight and body fats

## Why These Six Behaviors?

- Based on the scientific literature and expert medical opinion.
- The principle of <u>economy</u>. Research shows that compliance with healthy behavior suffers when people are asked to do more than a handful of healthy activities. You might think about this as a "less is more" concept.

# Why These Six Behaviors? (...continued)

- The principle was <u>utility</u>. We choose brain-healthy factors that had the most impressive data supporting them.
- The principle was <u>association</u>. The six brain-healthy factors we selected are highly associated with other mitigating factors. For example, we did not include questions about diet because diet is highly correlated with the brain-healthy behaviors we did include (e.g., Body Mass Index and systolic blood pressure).

### Exercise to Reduce Dementia Risk

- Goal is at least 5 times a week, for 30 minutes.
- Moderately intense exercises (based on your medical status).
- Exercise increases the flow of blood and oxygen in the brain. This positive cardiovascular benefit may protect brain cells, making them more resistant to diseases such as Alzheimer's disease and strokes.

## No Smoking to Reduce Dementia Risk

- 20 minutes after quitting, your heart rate drops.
- 12 hours after quitting, carbon monoxide levels in your blood drop to normal.
- 2 weeks to 3 months after quitting, your heart attack risk begins to drop, and your lung function begins to improve.
- 1 to 9 months after quitting, your coughing and shortness of breath decrease.
- 1 year after quitting, your added risk of coronary heart disease is half that of a smoker's.
- 15 years after quitting, your risk of coronary heart disease is back to that of a nonsmoker's.

# Routinely Add Cognitive Stimulation that is Challenging to Reduce Dementia Risk

- Goal is at least 5 times a week, for 15 minutes.
- Moderately difficult exercises (make the brain work).
- Novel exercises (not part of normal work or other activity).
- Progressively more difficult.
- Use evidence-based exercises (like The BCAT Working Memory Exercise Book).

## Improve Mood to Reduce Dementia Risk

- People who are chronically depressed are more likely to convert from MCI to dementia.
- Chronic depression may change the physiology of how neurons perform.
- Some evidence that chronic depression particularly disrupts executive functions.
- Treatment of depression may be critical in lowering dementia risk.
- Treatment that may mitigate dementia is should include some form of psychotherapy.

Treat depression when it occurs!

### Control Hypertension and Heart Rate to Reduce Dementia Risk

- Hypertension is one of the principal risk factors for cerebrovascular disease.
- Cerebrovascular disease is often associated with cognitive decline and dementia.
- Cognitive decline is often inversely proportional to hypertension measured 15 or 20 years previously.
- Cerebral infarcts, lacunae, and white matter changes are associated with dementia.
- Chronic irregular heart rate is associated with memory loss.



# Healthy Weight and Body Fats to Reduce Dementia Risk

- Strong correlation between adult obesity and Type 2 diabetes.
- Link between Type 2 diabetes and dementia.
- Higher midlife Body Mass Index (BMI) associated with dementia risk in a majority of studies.
- Very low BMI may be associated with higher dementia risk.



# **STEP TWO**

# Using the ENRICH® Calculator to Determine Your Risk

### What is the ENRICH® Calculator?

- The ENRICH® Calculator is a simple method for determining to what extent you routinely practice brainhealthy behavior.
- The ENRICH® Calculator score is a helpful indicator, but not a diagnostic tool.
- Your score is intended to give you information about your risk, so that you can practice lifestyle habits that may lower risk of dementia, slow down cognitive decline, or improve cognitive performance.

## Specifics About the ENRICH® Calculator

- Free to use.
- Can use as often as desired.
- Generates a report to be shared with healthcare professionals and loved ones.
- Score range is 0 12.
- Generates three risk categories: low, moderate, and high.
- Provides suggestions for improving risk.
- You can find the calculator at www.ENRICHvisits.com.



# STEP THREE

# Assessing your Current Cognitive Functioning

# Two Home-based Cognitive Assessment Tools Can be Used

- Privacy
- Reports that can be shared with healthcare providers and family
- Scientifically validated cognitive tools:
  - ✓ The Self-Assessment of Cognition (SAC) Screen
  - ✓ The Brief Cognitive Assessment Tool (BCAT)
    - >Telehealth administration



# What is the SAC Cognitive Screening Tool?

- A self-assessment
- Created and validated by the BCAT Research Center
- Eight items
- Has a "cut" score indicating probable cognitive impairment
- Assesses both verbal and visual memory
- Cognitive and functional items

### You Should Choose the SAC When...

- You want a screening tool that is strongly predictive of cognitive and memory functioning.
- You want a screening tool that can help you determine when you may need a more comprehensive evaluation.
- You want an on-demand or an immediate assessment that you can complete on your own.
- You want an immediate written report.
- You only have a few minutes available.
- You want a brief "snapshot" of cognitive functioning.

### What is the BCAT?

- Used throughout the country, across the healthcare spectrum.
- Assesses global cognitive functioning.
- Emphasis on attention, contextual memory, and executive functions.
- Produces total and factor scores.
- Predicts cognitive diagnosis and functional skills (IADL).
- Is administered by a healthcare professional.

### You Should Choose the BCAT® When...

- When you want a "live" administrator to guide you.
- When you are comfortable with a telehealth visit.
- When you want a more comprehensive assessment.
- When you have 30 minutes of time available.
- When you want an emailed written report.



# STEP FOUR

Using the Right Tools to Improve Your Cognitive Health and Lower Dementia Risk

## Putting It All Together to Improve Your Brain Health and Lower Dementia Risk

- Review your ENRICH® Calculator Report.
- Make a plan to improve your score over the next six months based on the report.
- Select your cognitive enhancement tools.
- Particularly focus on cognitive exercises and create routines.
- In six months, repeat the ENRICH® calculator and repeat your cognitive assessment.

# Specific Tools for Improving Cognitive Functioning and Lowering Dementia Risk

The BCAT Research Center has developed two separate brain health programs:

- BCAT Working Memory Exercise Book Home Edition
- BCAT Online Brain Rehabilitation Modules

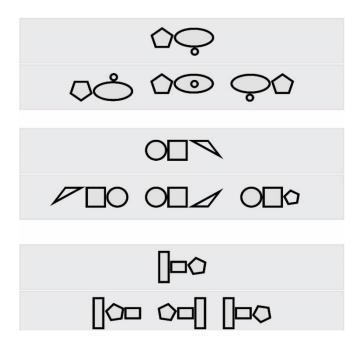
# The BCAT Working Memory Exercise Book – Home Edition

This workbook is designed to:

- Improve "working memory."
- Increase attention skills.
- Provide memory strategies.
- Buffer against cognitive loss.
- Improve executive functions.
- Promote independent living.

## A Brief Example of the "Flip the Image" Exercise

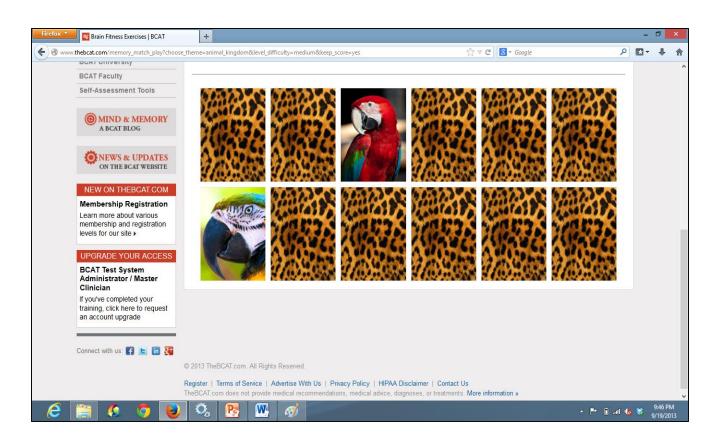
Below there are a series of images. Look at the image carefully. Your task is to try to flip the image horizontally, (similar to turning a page in a book, left to right). Below each image, you will find three possible matches. Choose the correct one.



### **BCAT Online Brain Rehabilitation Modules**

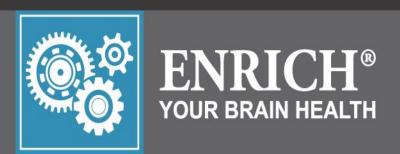
- **The Memory Match Module** recruits those parts of the brain that are responsible for concentration and attention, as well as for memory.
- The Sort the Set Module recruits those parts of the brain that are responsible for focusing and shifting attention from one task to another. Set shifting ability has been found to be important in the successful performance of tasks of daily living.
- *The Color Illusion Module* requires one to selectively pay attention to one task while not paying attention to a competing task.

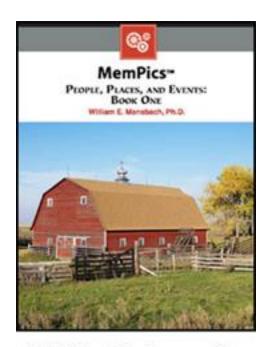
# A Brief Example of Memory Match Brain Rehabilitation



### **MemPics Books Series**

- Designed to engage participants who have memory loss in fun and cognitively enhancing activities
- Activate old memories through pictures and conversations about familiar people, places, objects, and events





BCAT MemPics for cognitive stimulation



# Want to Learn More?

Visit the ENRICH® website – www.ENRICHvisits.com

Visit the BCAT® website – <u>www.thebcat.com</u>

Sign up for a FREE membership and receive educational posts: info@thebcat.com