### **Know your risk:**

- 1. Family history (genetic markers)
- 2. Micronutrients (vitamins & minerals)
- 3. Metabolic Values
- 4. Hormones
- 5. High cholesterol
- 6. Depression
- 7. High blood pressure
- 8. High insulin
- 9. Diabetes
- 10. Weight
- 11. Smoking/tobacco/vaping
- 12. Lack of physical exercise
- 13. Not participating in mentally stimulating exercises
- 14. Socially isolated from friends and family
- 15. Sugar
- 16. Mold/toxins
- 17. Sleep disturbances
- 18. Stress
- 19. Alcohol
- 20. Processed Foods
- 21. Inflammation
- 22. Hearing loss/tinnitus
- 23. Head injury

### Assessments:

- 1. MOCA(Montreal Cognitive Assessment) 26-30 Normal
- 2. CNS Vital Signs
- 3. CT/MRI/SPECT Scans
- 4. Lumbar Puncture to check biomarkers

# 6.5 million in the US, with five caregivers per person, impacting 30 million

#### Overview:

Dementia is the loss of cognitive functioning — thinking, remembering, and reasoning — and behavioral abilities to such an extent that it interferes with a person's daily life and activities. Dementia ranges in severity from the mildest stage, when it is just beginning to affect a person's functioning, to the most severe stage, when the person must depend completely on others for help with basic activities of daily living.

**Subjective Cognitive Impairment** is when a patient reports a worsening of their thinking abilities, including memory, but the decline cannot be verified by standard tests. Patients with SCI report symptoms similar to those of mild cognitive impairment: increasing forgetfulness, losing a train of thought, feeling overwhelmed making decisions or planning, and depression

• These symptoms don't often significantly affect a patient's daily activities.

**Mild Cognitive Impairment (MCI)** describes patients with memory problems that are more severe than those caused by normal aging. However, these impairments are mild and not as severe as those experienced in patients with dementia. Patients with MCI can generally live their daily lives and participate in their usual activities without any trouble.

- Patients with MCI are at an increased risk of developing dementia later in life.
- Symptoms of mild cognitive impairment are often subtle, and patients may not even notice them because they often develop coping methods, such as written reminders. Symptoms may include increasing forgetfulness, forgetting important appointments or events, losing trains of thought, losing the thread of conversation, books, and movies, feeling overwhelmed making decisions or planning, difficulty navigating familiar environments, increased impulsiveness, depression, Irritability, and aggression, anxiety, and apathy

Vascular dementia is the second most common form of dementia after Alzheimer disease. It's caused when decreased blood flow damages brain tissue. Blood flow to brain tissue may be reduced. Or it may be completely blocked by a blood clot. Other abnormalities commonly found in the brains of people with vascular dementia are diseased small blood vessels and changes in "white matter" — the connecting "wires" of the brain that are critical for relaying messages between brain regions. People with vascular dementia may experience:

- Difficulty performing tasks that used to be easy, such as paying bills
- Trouble following instructions or learning new information and routines
- Forgetting current or past events
- Misplacing items
- Getting lost on familiar routes
- Problems with language, such as finding the right word or using the wrong word
- Changes in sleep patterns
- Difficulty reading and writing
- Loss of interest in things or people
- Changes in personality, behavior, and mood, such as depression, agitation, and anger
- Hallucinations or delusions (believing something is real that is not)
- Poor judgment and loss of ability to perceive danger

**Alzheimer's** disease is the most commonly diagnosed form of dementia in older adults. Alzheimer's disease is a brain disorder that slowly destroys memory and thinking skills, and eventually, the ability to carry out the simplest tasks.

- Memory loss that disrupts daily life
- Poor judgment, leading to bad decisions
- Loss of spontaneity and sense of initiative
- Losing track of dates or knowing current location
- Taking longer to complete normal daily tasks

- Repeating questions or forgetting recently learned information
- Trouble handling money and paying bills
- Challenges in planning or solving problems
- Wandering and getting lost
- Losing things or misplacing them in odd places
- · Difficulty completing tasks such as bathing
- Mood and personality changes
- Increased anxiety and/or aggression

https://www.nia.nih.gov/health/alzheimers-and-dementia/alzheimers-disease-fact-sheet https://www.nia.nih.gov/health/alzheimers-symptoms-and-diagnosis/what-are-signs-alzheimers-disease

# **Prevention and Intervention Programs**

BrainFit Programs: Kemper Cognitive Wellness, Rocky Ridge, Ohio *BrainFit*° is the ultimate fitness club for your brain.

While our brains aren't considered a muscle, this vital organ benefits from regular, intense workouts *throughout* life. *BrainFit*\* incorporates the pillars of wellness and evidence-informed interventions that promote neurogenesis, or the ability to grow new brain cells and enhance cognition.

**Cognitive training** (Equipping Minds), non-invasive neuro-technologies, coordinated movement, physical activity, and brain-healthy lifestyle coaching, all designed to steadily help participants improve their memory, are cornerstones of the *BrainFit*\* experience.

Those that participate in BrainFit\* may experience most or all of these benefits:

- Clear thinking and enhanced cognitive function
- Increased independence
- Improved communication
- Mood stabilization and emotional regulation
- Decreased anxiety
- Increased social engagement
- Improved appetite
- Enhanced sleep quality
- Cognitive reablement

**Combining physical and mental exercises,** Brain Bootcamp is a fun way to work your body and mind! Each week, participants will learn new exercises and revisit exercises from previous weeks, progressively building as the body and mind adapts.

## Who is Brain Bootcamp appropriate for?

- Adults of all ages and levels of physical ability
- Anyone interested in keeping their brain and body sharp
- Those wishing to improve memory, focus, and concentration
- People with a family history of Alzheimer's or dementia
- Those experiencing subjective cognitive impairment or cognitive issues that only you notice

### Music

Stimulates Various Parts of the Brain (Non-Pharmacological Approach) Brain networks involved in music are generally less affected by Alzeheimers

# How to Implement:

Daily for 30-60 minutes or more: Morning/ Afternoon/ Evening

Listen and sing to familiar music (hymns: Reawaken, Christmas music)

Reading and recalling lyrics activate the brain

Social Connections

Music that encourages movement

Can help with sundowners-listening around 4:00

Music in Critical Care

Benefits

- Impacts Memory
- Reduces Agitation
- Overall Cognitive Function

### Movement:

Reflexes, Finger Tapping, Walking, Strength Training (light weights/resistance training) Tai Chi.

### **Nutrition:**

Food can help or harm

Reduce or no sugar: Avoid white carbs, refined, processed foods Increase protein, fat, fiber, vegetables, berries, nuts, olives, wild salmon, beans, lean meats \*Some recommend Mediterranean, others Keto, others plant-based

### Resources:

*Memories For Life: Reversing Alzheimer's- Documentary* Dr. Dale Bredesen 36 factors- there is no a silver bullet

The End of Alzheimer's Program Dr. Dale Bredesen

Reversing Alzheimer's: The New Toolkit to Improve Cognition and Protect Brain Health: Dr. Heather Sandison

KarenHurd.com

The Power of Music for Aging Adults with Dementia Demnetiahttps://www.youtube.com/watch?v=DXcaGte90Vg

Equipping Minds www.equippingminds.com and Equipping Minds YouTube Channel

Kemper Cognitive Wellness