About Brain Fitness

We have all heard in the news, from friends, and other resources that one way to prevent dementia is to do activities such as crossword puzzles, Sudoku, or anagrams. While those activities are beneficial, they are only one part of maintaining brain fitness. Research has shown there are many ways to help maintain your brain fitness.

The Components of Brain Health:

Executive Function
Frontal lobes of the brain are mostly responsible for planning, problem solving, ability to make new memories, and handle situations that are not part of routines.

Attention
Attention is one of the most important aspects of executive functioning. The ability to sustain attention tends to slowly decrease during middle and late adulthood. It is the largest contributor to normal age-related memory impairment. By not being able to pay attention, new memories are difficult to form.

Memory
There are three memory processes.
1) Encoding new memories
2) Storing new memories
3) Retrieving stored memories

Most memory problems start because encoding (translating) memories is difficult, requires attention and a change to the neuronal structures and connections in the brain. If stored memory has not been used often, most semantic (facts and knowledge) and episodic (personal) memories fade. Retrieval of memory can have an error if cues to activate the stored memory are inadequate. We often forget because there’s a
source of confusion, inattention, decay of memory, prior knowledge, and/or interference.

Studies have shown:

- Drinking tea has been associated with less cognitive decline. Specifically, drinking tea 1 to 4 times a week is associated with a 37% less cognitive decline.
- During a two-decade follow up, the Framingham Study showed that performing moderate to heavy levels of physical activity was associated with a 40% lower risk of developing any type of dementia, especially in men.
- Strength training in particular is associated with better cognitive function.
- Being sedentary in midlife was associated with a 50% greater chance of developing dementia.
- Vitamin D deficiency can increase the risk of cognitive decline and dementia later in life. For those that were severely deficient, there was a 394% greater chance of cognitive impairment.
- Smoking increases the risk for Alzheimer’s disease.
- Socializing can play a role in preventing Alzheimer’s disease as well as depression, which can further prevent memory problems.
- Omega-3 polyunsaturated fatty acids have been linked as a possible intervention for dementia. This can be found in fish, nuts, olive oil and supplements.
- Eating foods rich in antioxidants can reduce the negative impact of free radicals, thereby preventing damage to the body and maintaining brain health. Foods like prunes, raisins, berries, spinach, Brussels sprouts, and grapes are high in antioxidants.
- Long term use of certain drugs such as marijuana, stimulants, alcohol, and opiate painkillers can have a negative effect on memory, cognitive ability, and executive functioning.

Sources: