

July 2020 Health Notes by Evelyn Ames

Are Supplements Effective in Improving Brain Health?

A few months ago, the WWURA Board arranged a brown bag lunch featuring the director of Dementia Northwest Support organization. Due to COVID-19 the program was cancelled. The following information focuses on one area that was to be discussed: the efficacy of supplements promoted to prevent/reduce dementia or improve brain health.

Various resources (e.g., AARP, National Center on Aging, Mayo Clinic Alzheimer's Disease Research Center) report that more than a quarter of adults in the United States age 50 and older take at least one supplement for brain-health reasons. In 2016, brain-health supplements generated \$3 billion in sales globally. The projection is that by 2023 the amount will reach \$5.8 billion. Despite this wide-spread use of brain-health supplements, there appears to be little scientific evidence to support the efficacy of use. In other words, it is a massive waste of money. “Indeed, one AARP analysis of spending on just six different supplements marketed for brain health shows that 50-plus adults spend more than \$93 million a month on these proprietary blends alone. These people taking these pills are spending between \$20 and \$60 a month and flushing dollars down the toilet that could be better spent on things that actually improve their brain health.”

The Global Council on Brain Health (GCBH) is an independent collaborative of scientists, doctors, scholars, and policy experts from all over the world. After undertaking an evidence-review of brain-health supplements potential effectiveness, the GCBH “determined it could not endorse any ingredient, product or supplement formulation designed for brain health.” Instead, the GCBH concluded that the best way for most people to get their nutrients for brain health is from a healthy diet. “Scientific evidence does not support the use of any supplement to prevent, slow, reverse, or stop cognitive decline or dementia or other related neurological disease such as Alzheimer’s.”

For the small handful of dietary supplements that have been well-researched, the results showed no brain health benefit in people with normal nutrient levels. What is unclear or inconclusive due lack of double-blind studies, is whether people with nutritional deficiencies can benefit their brains by taking a supplement. Beyond a few very specific nutrients taken to replace an identified deficiency, there is insufficient evidence to support the use of supplements to benefit the brain.

Besides the lack of evidence of effectiveness for brain–health supplements, there are significant concerns about the truth of marketing claims because of potential lack of safety and purity of the ingredients used in formulating supplements. Current federal law and lack of regulation allow manufacturers and distributors to make vague or exaggerated claims about brain health. Dietary supplements are sold without premarket governmental review of their safety and efficacy or the truthfulness of manufacturers’ claims. Chemical analysis and review of purity and content may not have occurred, allowing quality of the ingredients to vary widely.

An exception to one supplement relates to deficiencies of vitamin B-12. A small percentage of people over 50 have a B-12 deficiency, often due to poor gastrointestinal absorption or following a vegan diet. Vegan diets are low in B-12. A simple blood test can determine if a deficiency exists.

GCBH experts urge those with certain health conditions to be “especially careful about taking dietary supplements.” People on blood thinners or certain other medications: Vitamin K supplements decrease the effect of blood thinner Coumadin. People who are about to have surgery are requested to stop taking herbal medications such as echinacea, garlic, ginkgo, ginseng, kava, saw palmetto, St. John's wort and valerian. These herbs may increase risks during surgery. People who have cancer and take antioxidant vitamins such as vitamins E and C may reduce the effectiveness of chemotherapy. People who have mild cognitive impairment and take melatonin supplements for helping them to sleep increase the risk of falls and other adverse events.

Suggestions for preserving brain health: engage in regular exercise, maintain recommended blood pressure levels, eat a heart-healthy diet, and engage in intellectual hobbies such as reading books and playing board games. In other words, keep the body moving and the brain learning.

<https://www.aarp.org/health/brain-health/global-council-on-brain-health/supplements/>

<https://www.mayo.edu/research/centers-programs/alzheimers-disease-research-center/about/about-center>