

Definitions

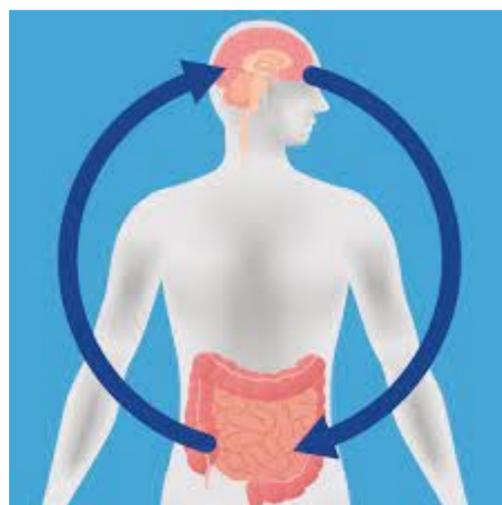
- Cognition – one’s overall knowledge and awareness capabilities, including perceiving, conceiving, remembering, reasoning, judging, imagining, and problem solving.¹
- CI – cognitive impairment
- Dementia – a general term for the loss of memory, language, problem-solving, and other thinking abilities. The loss of these cognitive abilities is drastic enough to interfere with or negatively impact daily living.²
- Depression – a negative state of mind that disturbs daily living, from general feelings of unhappiness and discontentment to extreme feelings of sadness and pessimism. Depression also tends to coexist with changes in the physical, cognitive, and social aspects of life, such as changes in eating or sleeping habits, struggling with decision making or concentration, isolating from social interaction or activities, and a lack of motivation or energy.³
- Older adult – those who are aged 65 years or older.⁴
- RDA – recommended dietary allowance; the daily level of intake, on average, that has been sufficient to meet the nutrient needs of approximately 98% of healthy people.⁵

Significance

- More than 20% of older adults are diagnosed with some form of a neurological or mental disorder, with the most common of these disorders in the older population being depression and dementia.⁶
- It has been estimated that, by the year 2040, the number of people living with dementia worldwide will reach 81.1 million.⁷
- The World Health Organization estimates that in the years 2015 to 2050, the number of older adults in the world will almost double.⁶
- With aging, people develop new health concerns, have an increased risk to develop health issues, and have changing nutrient needs.⁸ This may mean that older adults will experience more than one condition at the same time.
- Late-life depression is a major factor in increasing the risk of dementia and heart disease.⁹
- Inefficient B-12 intake can create complications that negatively affect the sensory and motor skills and can lead to neurocognitive impairment and increased vascular disease risk.¹⁰

Introduction

- The purpose of this review of literature was to explore the relationship between food and nutrient intake and cognition and emotional health in older adults.
- Nutrition is a key factor in successful aging, and a healthy diet is crucial to the psychological quality of life. Healthy lifestyles have been shown to help improve longevity and overall wellbeing in older adults.¹⁰
- The prevalence of older adults in the United States, and the world, is growing rapidly, as is the prevalence of older adults showing signs of cognitive decline, dementia, or depression.⁶
- Prevention practices help decrease the risk of developing diseases and have the most impact if they are implemented before individuals reach 65 years old.⁶



Methods

- This literature review consists of peer-reviewed articles from the past 10 years utilizing related keywords such as: dementia, cognitive decline, nutrition in older adults, cognitive impairment, food and nutrients, vitamins and cognition, health in older adults, mental health in older adults and nutrition, and more.
- The literature was obtained through the Tennessee Technological University Library Database Eagle Search and the Journal of the Academy of Nutrition and Dietetics.

Results: Dementia and Cognitive Decline

- In a systemic review, five of six studies that examined fruit and vegetables separately discovered that an increased consumption of vegetables, but not fruit, was related to a decreased risk of dementia and slower cognitive decline.¹¹
- Lower absorption of B-12 and a higher deficiency risk are typical with older age, sometimes due to the decline in gastric acid production.¹² Older adults may be less likely to consume foods rich in B-12, such as animal proteins, because they are hard to chew and more expensive. In consequence, the RDA of B-12 for older adults should be higher than younger populations to balance the effects of aging.¹³
- In the beginning of one study, 7,030 postmenopausal women aged 65 to 79 years old who did not have CI or probable dementia self-reported B-vitamin intake. Five years later, a follow-up revealed that the participants who had a folate intake below the RDA at the beginning of the study were associated with an increased risk of CI or dementia.¹⁴
- In another study, dose-response meta-analysis showed that consuming 100 grams of fruits and vegetables per day was related to an approximately 13% decrease in CI and dementia risk. The authors did not find any significant associations in participants younger than 65 years old, possibly because the risk of CI and dementia increases with age.¹⁵

Results: Depression and Emotional Health

- In one study, the older adults who were at nutrition risk consumed less fruits and vegetables and had a lower satisfaction with life, lower resilience, and higher Geriatric Depression Scale scores. The authors stated that a greater amount of health concerns or diagnoses are or will be present in those classified as at risk.¹⁶
- The results in another study determined that naturally-occurring antioxidants like vitamin C, as well as fruit and vegetable intakes, were lower in the participants who had depression when compared to the intakes of those who did not have depression. Even in multivariable models that controlled for age, sex, education, BMI, total dietary fat, and alcohol intake, the results remained constant.⁹

Conclusion

- Several studies found that the increased consumption of fruit and vegetables was linked to a reduced risk of CI and dementia. Other research found that B vitamins are important in reducing the risk for negative neurological situations.
- Although there is no research that can definitively prove that a specific dietary intake will prevent or help manage CI, dementia, or depression, all of the studies in this review provided data that did support a significant relationship between food intake and cognition and emotional health in older adults.



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