

# COSMOS-Mind Study

Centrum Silver is clinically shown to support cognitive health in older adults<sup>1</sup>



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**Centrum**  
SILVER

## What is COSMOS-Mind?<sup>1</sup>

COSMOS-Mind was the the first large-scale, long-term, randomized controlled trial to assess the effects of a multivitamin and mineral supplement (Centrum Silver) on cognition in older women and men.

## The study in context

Population aging is one of the most significant demographic transformations of the 21st century.<sup>2</sup>

By 2030,

# 1 in 6 people

in the world will be aged  
**60 years or over.**<sup>3</sup>

Maintaining an adequate nutritional status as well as a sufficient nutrient intake is key to health and quality of life as we age. However, older adults are susceptible to nutritional deficiencies through a variety of mechanisms.<sup>4</sup>

Insufficient nutrient intake and malnutrition negatively impact many facets of health, including cognition.<sup>4,5</sup>

The COSMOS-Mind study investigated if daily supplementation with Centrum Silver benefits cognitive function in older adults.<sup>1</sup>





## Key results<sup>1</sup>



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### 01

The study demonstrated that daily use of Centrum Silver **significantly benefited cognitive function.**

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### 02

Centrum Silver showed significant benefits in **memory and executive function.**

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### 03

Among individuals with a history of Cardiovascular Disease (CVD) those that took Centrum Silver showed a significant benefit in memory at 1 year vs. placebo.

# COSMOS-Mind Study Overview<sup>1</sup>

## Study objective

Assess the effects of:



Centrum Silver  
vs. Placebo

on



01 Global cognition  
02 Episodic memory  
03 Executive function

in



older adults aged  
**≥65 years old**

## Study design & population



### Methods:

Cognition was assessed by **telephone** at baseline and then **annually for 3 years**.



### Primary endpoint:

Change in global cognition composite score over **3 years with Centrum Silver use**.



### Secondary endpoint:

Change in episodic memory and executive function with **3 years of Centrum Silver use**.

Number of participants:

**2,262**

## Endpoint definitions

### Global cognition:

An umbrella term that refers to various aspects of cognitive performance like orientation, recall, attention, calculation, and language.<sup>6</sup>

### Episodic memory:

The ability to encode, store, and recollect events.<sup>6</sup>

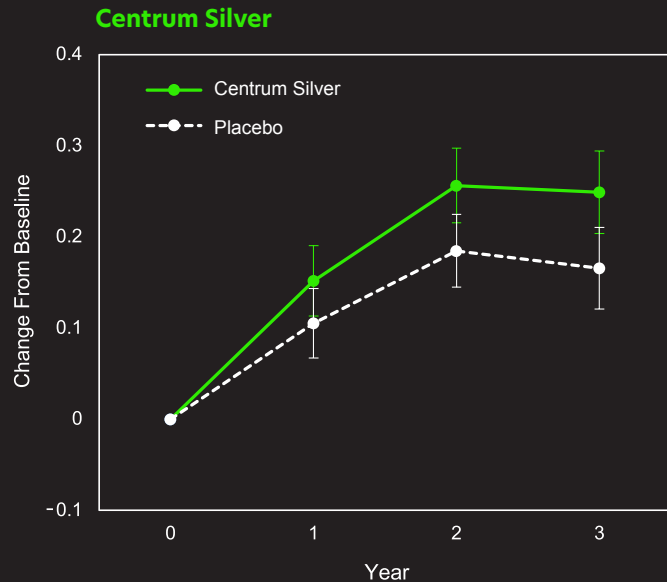
### Executive function:

The ability to carry out goal-directed behavior through strategy planning and awareness of information.<sup>1</sup>

## Results

### Global cognition

Daily use of Centrum Silver, relative to placebo, resulted in a **statistically significant benefit on global cognition**.



mean change (Centrum Silver minus Centrum Silver placebo) z-score of 0.07 (95% CI: 0.02 to 0.12; P=0.007).

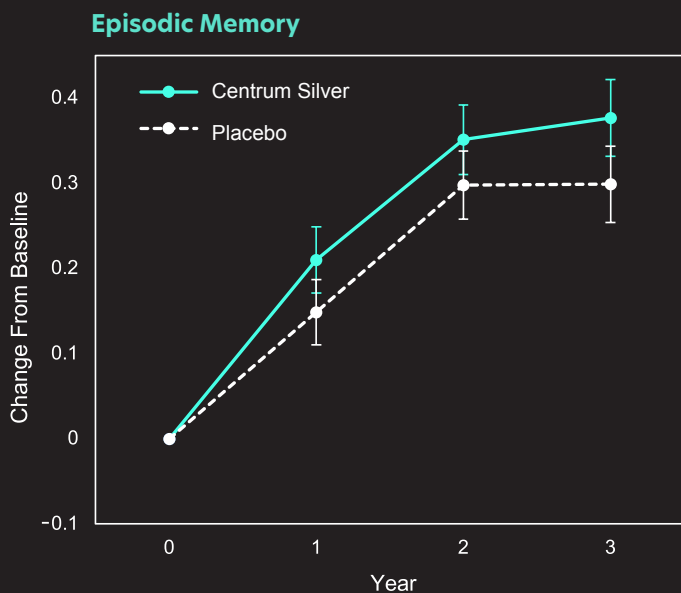
What could this mean for your patient?

Daily intake of **Centrum Silver for 3 years** may slow cognitive aging by **60%\***

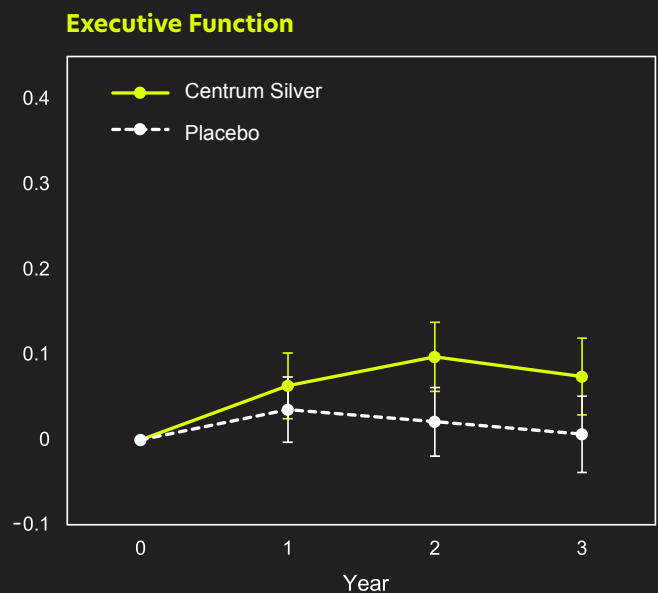
\*Based on predictive model used to estimate age-related cognitive decline within the study with observed treatment-related protection against cognitive aging of 1.8 years in 3 years

### Memory and Executive Function

There were **significant improvements** in **episodic memory** and **executive function** with daily supplementation of **Centrum Silver** compared with placebo.



mean change z-score = 0.06, 95% CI: 0.002 to 0.13; P=0.04



mean change z-score = 0.06, 95% CI: 0.01 to 0.11; P=0.02

## Strengths

- Provides additional evidence to support why **older adults may benefit from supplementation** with a multivitamin, in addition to a healthy diet and exercise
- **Large-scale, long-term** randomized controlled trial
- COSMOS-Mind assessed a **safe,\* affordable, readily accessible** multivitamin and mineral supplement

## Limitations

- Only **11%** of participants were from traditionally underrepresented racial or ethnic minority groups
- Adherence to study pills and health history (eg, cardiovascular disease) were **tracked using self-report**
- **Data were not collected to permit analyses of biomarkers** or potential effect modifiers

## Conclusion

Daily supplementation with **Centrum Silver** is a safe,\* readily accessible, and affordable intervention that can **support memory and cognitive function in older adults.**



## Future directions

Results of COSMOS-Mind **challenge the current status quo regarding the use of supplementation** to support cognitive function and set the stage for new avenues of research.

**Additional research in a diverse cohort** will help to build upon these findings and **could highlight potential underlying mechanisms** that might account for the observed benefit.

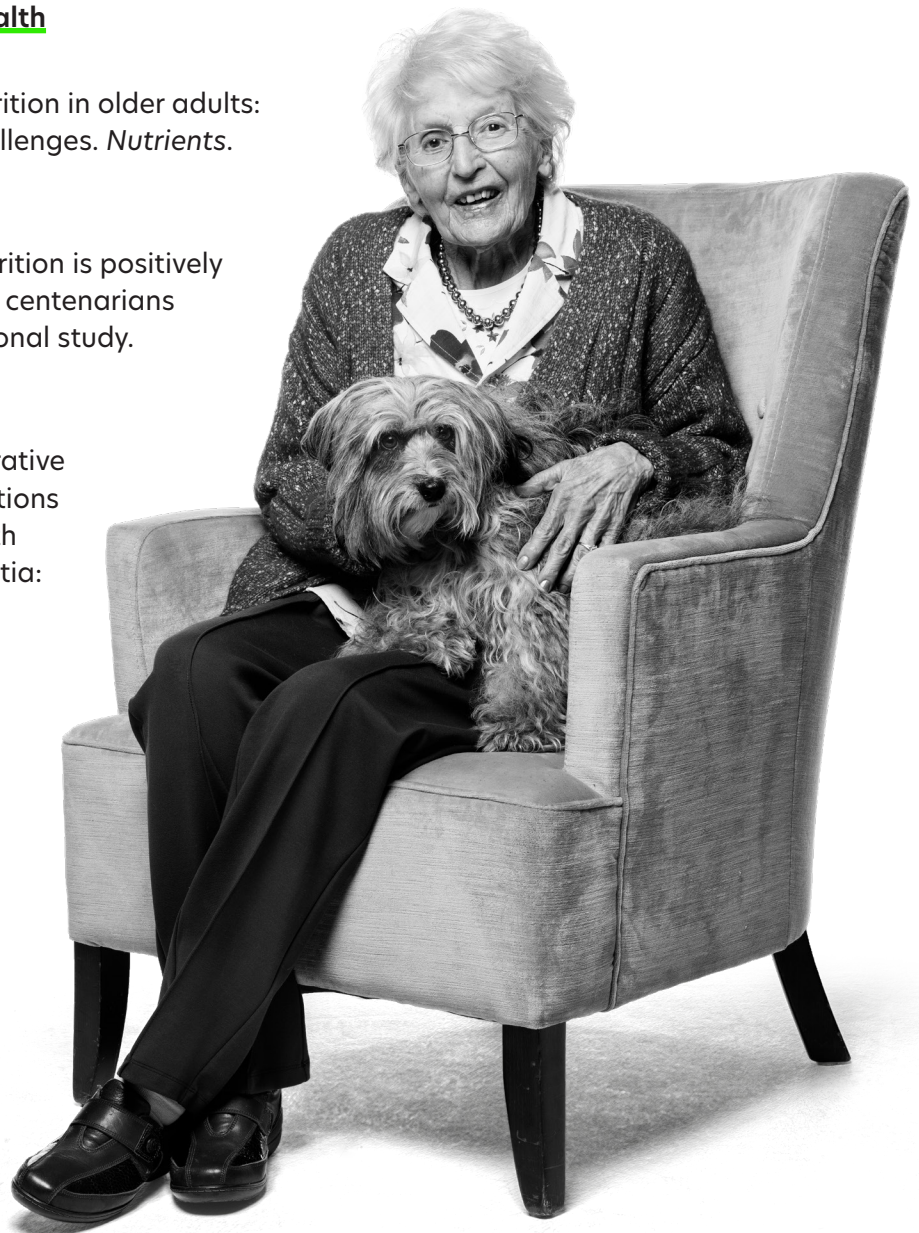
These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

\*When used in accordance with its labeling.



## References

1. Baker LD, Manson JE, Rapp SR, et al. Effects of cocoa extract and a multivitamin on cognitive function: a randomized clinical trial. *Alzheimers Dement*. 2022 Sep 14. doi: 10.1002/alz.12767. Online ahead of print.
2. United Nations website. Ageing. Accessed February 1, 2023. <https://www.un.org/en/global-issues/ageing>
3. World Health Organization website. Ageing and health. Accessed February 1, 2023. <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>
4. Norman K, Haß U, Pirlich M. Malnutrition in older adults: recent advances and remaining challenges. *Nutrients*. 2021;13(8):2764.
5. Feng L, Chu Z, Quan X, et al. Malnutrition is positively associated with cognitive decline in centenarians and oldest-old adults: a cross-sectional study. *EClinicalMedicine*. 2022;47:101336.
6. Huang X, Zhao X, Li B, et al. Comparative efficacy of various exercise interventions on cognitive function in patients with mild cognitive impairment or dementia: a systematic review and network meta-analysis. *J Sport Health Sci*. 2022;11(2):212-223.



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