

# COSMOS-Mind study:

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



**HALEON**

**Centrum**  
A rainbow-colored horizontal line with three purple dots to the right.

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

COSMOS-Mind is the first large-scale, long-term randomised control trial to assess the effects of a multivitamin and mineral supplement (Centrum Silver) and cocoa extract on global cognition in older women and men.

## The study in context

Population ageing 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 or cocoa extract improved cognitive function in older adults.<sup>1</sup>



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



1

The study demonstrated that daily use of Centrum Silver can **significantly improve cognitive function**

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2

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

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3

People with **a history of cardiovascular disease** received the greatest benefit

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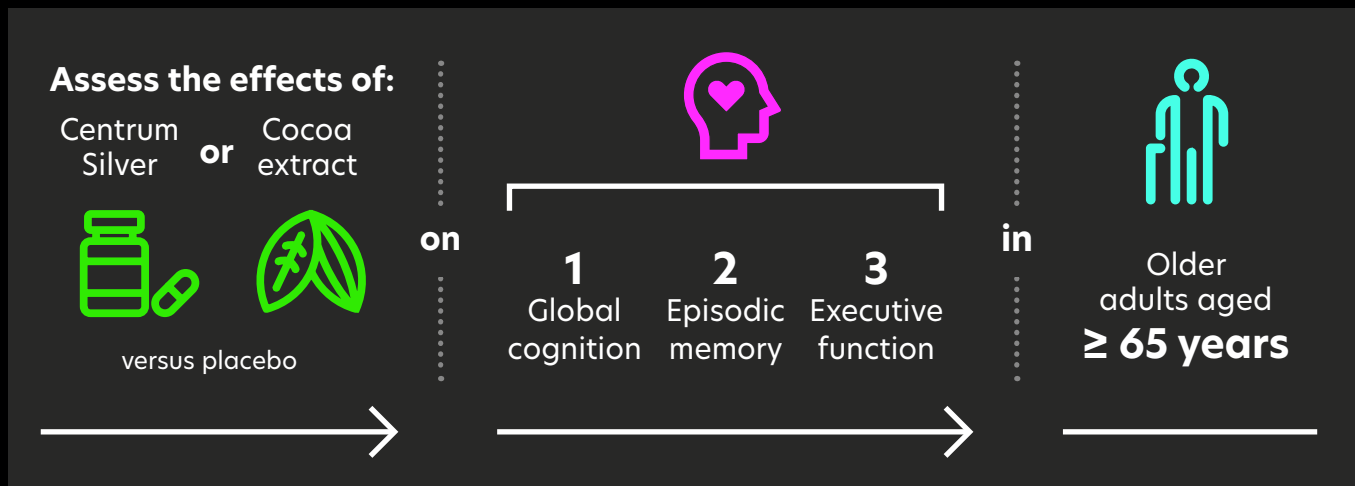
4

**Cocoa extract** did not significantly improve global cognition, memory or executive function

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# COSMOS-Mind study overview<sup>1</sup>

## Study Objective



## Study Design and Population

Number of participants: **2,262**

### Methods:

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



### Primary endpoint:

Change in global cognition composite with **3 years of cocoa extract use**



### Secondary endpoint:

Change in global cognition composite with **3 years of Centrum Silver use**

Treatment effects were also examined for executive function and memory composite scores, and in pre-specified subgroups at higher risk for cognitive decline.

## 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:

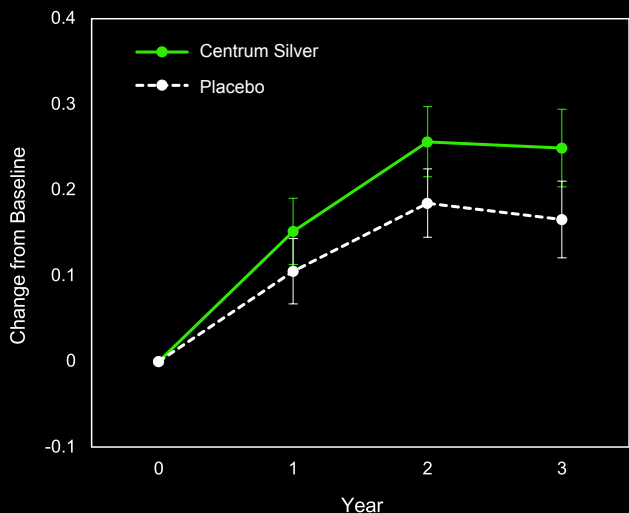
The ability to carry out goal-directed behavior through strategy planning and awareness of information.<sup>1</sup>

# Results

## Global cognition

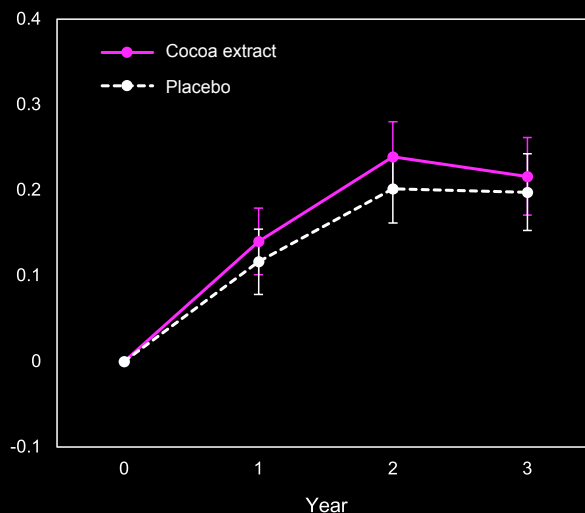
Daily use of Centrum Silver, relative to placebo, resulted in a **statistically significant benefit on global cognition**. No significant benefit was observed with cocoa extract.

### Centrum Silver



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

### Cocoa extract



mean change (cocoa extract minus cocoa extract placebo) z-score for global cognition was 0.03 (95% CI: 0.02 to 0.08; P=0.28).

What does this mean for your patients?



Daily intake of **Centrum Silver** for three years may slow cognitive ageing by

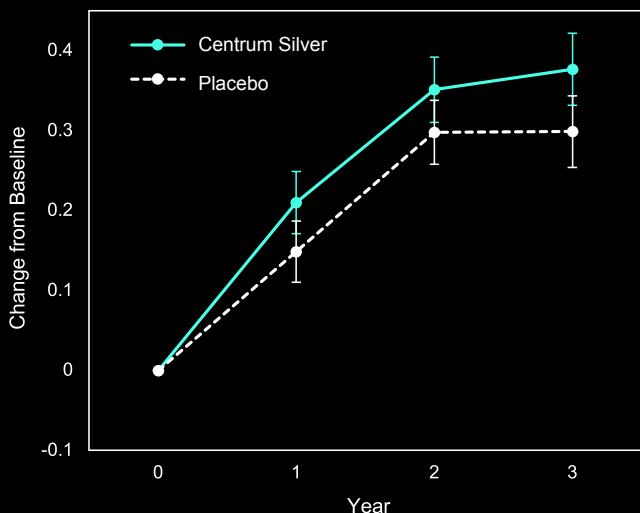
**60%**

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

## Memory and executive function

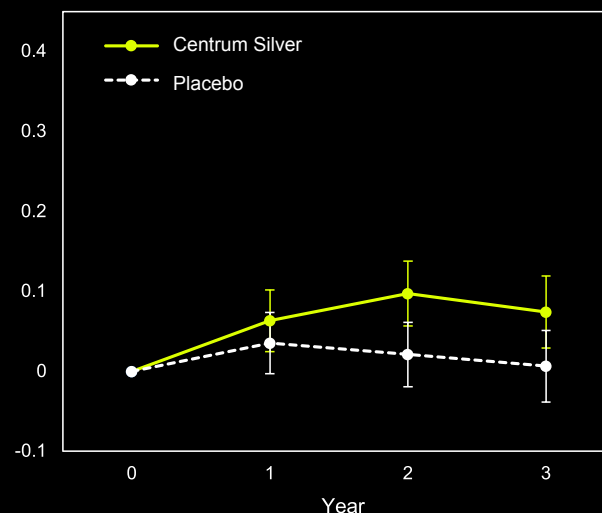
There were **significant improvements in episodic memory and executive function** with daily supplementation of **Centrum Silver** compared with placebo

### Episodic Memory



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

### Executive Function



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** randomised control 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 (e.g. 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 has the potential to **improve cognitive function in older people**. The cognitive benefits of Centrum Silver may also be **more pronounced among older adults with cardiovascular disease**.

## 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

\*When used in accordance with its labelling.

## References

1. Baker L et al. *Alzheimer's & Dementia*. 2022;1-12
2. United Nations. Global issues: Ageing. Available at: <https://www.un.org/en/global-issues/ageing> [accessed November 2022]
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