

## OMEGA-3 AS A PROPHYLACTIC TOOL IN PREVENTING COGNITIVE DETERIORATION IN THE ELDERLY

---

*Thiago Marques Brito*

*Raquel Lira Lustosa Carvalho*

*Gardênia Conceição Santos de Souza*

*Maria Eduarda Cavalcante Amorim*

*Dilson Machado Vieira Junior*

*Hector Alves Lima da Silva*

*Allan Carlo dos Santos Barata*

*Maria Fernanda Portela de Almeida*

*Jessica Harlen Ferreira Batista*

*Davi Lian Pereira Cardoso*

*Marcos Vinicius Vieira Apolinário*

*Paulo Rogério Barros Aguiar de Lima*

*Renata Fernandes Fialho Cantarelli*

*Pedro Cantarelli Primo de Carvalho*

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



## **INTRODUCTION**

The growing aging population has increased the rates of elderly people with declining cognitive function, causing an increase in physical and emotional dependence in this age group so neglected by society. In this sense, the pharmaceutical industry has been focusing on solving these demands, through studies of polyunsaturated fatty acids (PUFAs), especially omega-3, known as docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA) and alpha-linolenic acid. (ALLAH).

## **OBJECTIVES**

to evaluate the effects of omega 3 supplementation in preventing cognitive decline and deterioration in the elderly. Methodology: Through a narrative review, we used the bibliographic databases Cochrane, Pubmed and Google Scholar, with the descriptors “omega-3”, “PUFA” and “fatty acids”. Articles published between February 2017 and March 2023, three randomized clinical trials were selected in which the use of omega-3 was administered for at least six months in elderly people without cognitive dysfunction.

## **RESULTS**

In two studies, we did not obtain circumstantial differences in the mini-mental score (mini mental state exam) between the group that received omega-3 intake and the placebo group. In two other studies, using cognitive function tests (word learning, verbal fluency, and digit span), no positive effects were reported after supplementation, while the group that received placebo demonstrated little or no cognitive decline during the studies. Among the side effects reported, the most prevalent were gastrointestinal disorders, in a percentage of 15% of participants. The tests were not specific for the diagnosis or suspicion

of senile dementia, focusing only on the basic cognitive functions of the elderly participants in the study.

## **CONCLUSION**

Even though omega-3 is widely sold for this purpose, we realized through this narrative review that there is no proven evidence on its effect on preventing the deterioration of cognitive function in the elderly population. The available studies did not show significant benefits in healthy elderly people compared to the control group that received a placebo. Regarding side effects, participants were very tolerant of daily consumption of the dietary supplement, however there were reports of mild gastrointestinal tract disorders in a small fraction of cases. In this sense, additional studies of longer duration would be necessary to carry out a longitudinal prospector in order to increase the ability to detect the possible beneficial effects of omega-3 supplementation as a way to prevent the decrease in cognitive function in the elderly.