

## THE EFFECTS OF PROBIOTIC SUPPLEMENTATION IN ALZHEIMER'S DISEASE

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### Abstract

Recent research demonstrates that supplementation with probiotics can help reduce the symptoms of Alzheimer's disease (AD). This study is an integrative literature review that seeks to summarize knowledge about this topic which is currently very important. AD is the main cause of dementia and is fast becoming one of the deadliest and most serious diseases of this century. It is a pathology with still uncertain causes that affects mostly the elderly and occurs in large part with loss of patient's cognition. The recognition of multiple causative genes and means of protection, identification of new imaging tests with biomarkers, and screening of disease-modifying treatments is important for society. The understanding the relationship between the gut-brain axis as a way to reduce the symptoms of this disease which is becoming more and more popular. From this perspective, the study of probiotics is of great value. The objective of this work is to review, through an analysis of clinical studies, the impact of the use of probiotics on the reduction of symptoms of AD. This is an integrative literature review, with studies published in the last 5 years in English and Portuguese, with searches consulted in the specialized databases SCIELO and PUBMED, with their respective descriptors in Health Sciences - DeCS : Probiotics, Alzheimer and Symptoms, using the Boolean AND operator. In the search, 18 articles related to the proposed theme were analyzed. It was verified that there is a symptomatic reduction of AD both in humans and in mice and rats, mainly in cognitive functions, mood, learning capacity, long and short term memory with different probiotic's classes. It is known that AD has many pathways of development, but diet with different probiotics can significantly reduce neuroinflammation and neurodegeneration.

**Keywords:** probiotics; alzheimer; symptoms.

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