

Mediterranean diet and physical activity could prevent hospitalization-associated disability in older people

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Hospitalized older people who do not follow a Mediterranean diet could benefit from a physical exercise program to prevent hospitalization-

associated disability, that is, loss of skills in daily-life activities. Therefore, if the factor of following a Mediterranean diet is included among the variables assessed on the hospital admission of elderly patients, more precise and personalized strategies could be designed to prevent hospitalization-associated disability, which is only frequent in the elderly.

This is one of the conclusions of an article published in *The Journal of Nutrition, Health & Aging* and led by experts Mireia Urpi-Sarda, from the Faculty of Pharmacy and Health Sciences, the Institute for Research in Nutrition and Food Safety (INSA-UB) and the Torribera Food Campus of the University of Barcelona, and José Antonio Serra-Rexach, from the Biopathology of Aging Research Group of the Gregorio Marañón Health Research Institute (IISGM), both members of the CIBER on Frailty and Healthy Aging (CIBERFES).

The study notes that hospitalized older adults who eat similarly to a Mediterranean diet also improve their overall condition with exercise and health education guidelines. Notably, in an editorial the journal has highlighted the fact that patients with poorer physical condition show more significant improvements in response to a physical exercise program. Also, it encourages further studies on the influence of dietary patterns on the effects of exercise to prevent hospitalization-associated disability.

A basic exercise program for older patients

Hospitalization-associated disability is a phenomenon that affects even [older patients](#) who have been successfully treated for their condition while in the medical center. In addition, it can also lead to higher economic costs, readmissions, and even a higher mortality in some cases. In this context, physical exercise interventions during hospitalization have been shown to be safe and effective strategies to prevent this

functional deterioration in hospitalized [older people](#).

The new study is based on the AGE CAR-PLUS project, a randomized clinical study of 260 patients aged 75 years or older at the Gregorio Marañón University Hospital. As part of the study, a group of 109 volunteers—46% women aged about 87—were evaluated for adherence to a Mediterranean dietary pattern, urinary polyphenol levels, functional status, and other health parameters at the time of admission and discharge.

José Antonio Serra-Rexach says, "We observed that patients who underwent the physical exercise and health education intervention during hospitalization significantly increased their functional status at discharge, compared to their admission and to patients who did not undergo the intervention. However, to date, there was no evidence of the effect of a healthy diet on functional status in hospitalized older people."

"A healthy diet pattern, such as the Mediterranean diet, is associated with a lower risk of physical deterioration and weakness in elderly people. Considering that the Mediterranean diet is rich in polyphenols, we have evaluated the monitoring of this dietary pattern through a validated questionnaire, as well as by analyzing the level of polyphenols in urine," says Professor Mireia Urpi-Sarda, from the UB's Biomarkers and Nutritional & Food Metabolomics Research Group.

Researcher Alba Tor-Roca, from the Department of Nutrition, Food Sciences and Gastronomy of the UB, notes that "in the study, we observed that in individuals who had a low adherence to the Mediterranean diet when hospitalized, the intervention with physical exercise had a greater and clinically relevant effect on their functional capacities."

"These results suggest that adherence to the Mediterranean diet may

represent an indicator of those older patients with an apparently better response to [exercise](#) interventions," the researchers conclude.

More information: A. Tor-Roca et al, Adherence to Mediterranean Diet and Response to an Exercise Program to Prevent Hospitalization-Associated Disability in Older Adults: A Secondary Analysis from a Randomized Controlled Trial, *The Journal of Nutrition, Health & Aging* (2023). [DOI: 10.1007/s12603-023-1929-6](https://doi.org/10.1007/s12603-023-1929-6)

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