

## Diet, exercise, and psycho-emotional support aid recovery for cancer patients: a study

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Research news

**A recent study of women with breast cancer conducted by the University of Granada and the "Virgen de las Nieves" University Hospital has applied these three tools as part of a combined programme to treat the disease, with promising results**

Researchers from the University of Granada (UGR) and the "Virgen de las Nieves" University Hospital have studied the benefits of including interventions in the diet, physical exercise, and stress-control (mindfulness) of women diagnosed with early-stage breast cancer.



The study, performed by the hospital oncologist and UGR researcher Julia Ruiz Vozmediano, brings a novel, holistic approach to cancer treatment. Following conventional treatment, a combined programme of dietary support, physical activity, and practical guidance on how to manage the emotions is implemented. The results of the study have been published in the specialist journal Integrative Cancer Therapies.

“As things stand today, the health system is not facilitating a multidisciplinary approach that addresses the physical and neuropsychological consequences of cancer, which can affect the patient’s quality of life and hinder their recovery,” explains the author. For example, there are no physical exercise programmes designed to aid recovery or nutritional advice sessions on how to maintain a healthy lifestyle. These types of approach (exercise, diet, or stress-control) had already been tested in previous scientific studies, but in isolation—that is, the holistic application

of these approaches working together was missing,” comments Ruiz to explain the rationale for her research.

In this study, the women were informed of the importance of changing their daily habits, and they committed to following the guidelines they were given regarding diet, exercise, and emotional management—such as “following the general pattern of the Mediterranean diet,” which is known to reduce the risk of breast cancer by 30%.

### **Nutrition, exercise, and psycho-emotional support**

The first element was to work on patients’ dietary habits. Three workshops on healthy eating were delivered, which covered what to eat, how best to prepare and cook food, items to avoid, and healthy recipes.

The second element was physical exercise. For seven weeks, the women participated in sessions with expert physiotherapists from the UGR, which included activities targeted at different areas of the body, in addition to Spanish dance classes such as flamenco.

The third element, psycho-emotional support, included mindfulness-based stress-reduction sessions supervised by a psychologist with specific training in such techniques. Protocols on the practice of mindfulness through meditation and yoga were followed, all of which had already been validated in other population groups with similar pathologies.

After six months of follow-up and monitoring, it was found that the women had improved their physical and functional wellbeing, increased their adherence to a Mediterranean diet, and lost weight, thereby reducing their body mass index. Some of the characteristic symptoms of this disease (for example, dyspnea) had also decreased, compared to women with breast cancer who had not received this holistic intervention.

Ruiz welcomes the progress being made in developing such integrated approaches, which represents an innovative direction in Spain. “This work started in 2016 and is continuing. We have a holistic oncology clinic at the Virgen de las Nieves Hospital, and new lines of research have opened up in this area. In addition, special talks are given for patients on nutrition, exercise, environmental toxins, and stress education techniques,” she explains.

This work is part of Julia Ruiz Vozmediano’s doctoral thesis, directed by Professor Mariana F. Fernández of the UGR. The researchers thank all the women who selflessly participated in the study, despite their illness, as well as all the institutions involved: Breast-Care Unit of the Medical Oncology Service of the “Virgen de las

Nieves" University Hospital; Department of Radiology of the Faculty of Medicine, University of Granada; the Biohealth Research Institute in Granada (ibs.GRANADA), and the Cyber Programme of Epidemiology and Public Health (CIBERESP).

### **Bibliography:**

Julia Ruiz- Vozmediano et al. (2020) 'Influence of a Multidisciplinary Program of Diet, Exercise, and Mindfulness on the Quality of Life of Stage IIA-IIB Breast Cancer Survivors'. Integrative Cancer Therapies; 19:1534735420924757.  
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### **Image captions:**



Julia Ruiz-Vozmediano, principal author of this work.



Several of the sessions with cancer patients during the study.

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