

Physical training has a positive effect on the sexual health of women with metastatic breast cancer

Metastatic breast cancer requires complex and lengthy treatment, the side effects of which affect the quality of life of patients. These often include sexual problems. In a large international randomized exercise intervention trial, researchers at the German Cancer Research Center (DKFZ) and the NCT Heidelberg have now shown that women who received a nine-month supervised exercise program reported significantly fewer symptoms than women who did not participate in the training program.

The treatment of metastatic breast cancer is associated with a variety of adverse effects. However, in contrast to clinical side effects (e.g. neutropenia, nausea or vomiting), for which there are established treatment recommendations, sexual and vaginal problems are often still a taboo subject that is rarely discussed and little research is done on it.

In the international, randomized controlled PREFERABLE-EFFECT study, 355 women with metastatic breast cancer were repeatedly asked about their symptoms and problems over a period of nine months. Half of the participants completed a nine-month guided exercise program consisting of strength, endurance, and balance exercises twice a week for one hour each. The control group received only general exercise recommendations. The recently published primary analyses had shown significant improvements in fatigue and quality of life as a result of the training (Hiensch et al. Nature Medicine 2024). A current analysis of the study data at the DKFZ now focused on the information on sexual and vaginal problems as well as on other less considered symptoms.

The results show that many study participants suffered from low sexual activity, little interest in sex, limited sexual satisfaction, vaginal dryness or pain during intercourse at the beginning of the study. The guided training program led to an improvement.

After six months, the participants in the training group had higher scores for sexual activity/interest when rated on a scale from 0 to 100, with an average increase of six points compared to the control group. This difference was statistically significant and can be categorized as a small to moderate effect, which still existed after nine months. In addition, the proportion of women in the training group who found sex pleasurable increased. Vaginal problems also improved to a statistically significant extent after six months, with the training effect being most pronounced in women under 50 years of age. In addition, the training program significantly alleviated other chemotherapy side effects in patients undergoing chemotherapy, such as mouth sores and irritated eyes.

“The study underlines the importance of exercise as a supportive measure to improve the quality of life of women with metastatic breast cancer,” says senior author Karen Steindorf, head of a department at the DKFZ and the NCT Heidelberg. Further analyses are currently being carried out in the PREFERABLE project, including on blood samples from the participants, in order to better understand the mechanisms of action and possible modifying factors. The aim is to adapt the training programs even more individually for each patient in the future and to further increase their effectiveness.

About DKFZ:

With more than 3,000 employees, the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) is Germany's largest biomedical research institute. DKFZ scientists identify cancer risk factors, investigate how cancer progresses and develop new cancer prevention strategies. They are also developing new methods to diagnose tumors more precisely and treat cancer patients more successfully. The DKFZ's Cancer Information Service (KID) provides patients, interested citizens and experts with individual answers to questions relating to cancer.

To transfer promising approaches from cancer research to the clinic and thus improve the prognosis of cancer patients, the DKFZ cooperates with excellent research institutions and university hospitals throughout Germany:

- National Center for Tumor Diseases (NCT, 6 sites)
- German Cancer Consortium (DKTK, 8 sites)
- Hopp Children's Cancer Center (KiTZ) Heidelberg
- Helmholtz Institute for Translational Oncology (HI-TRON Mainz) - A Helmholtz Institute of the DKFZ
- DKFZ-Hector Cancer Institute at the University Medical Center Mannheim
- National Cancer Prevention Center (jointly with German Cancer Aid)

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Further information

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