

powered by



GERMAN  
CANCER RESEARCH CENTER  
IN THE HELMHOLTZ ASSOCIATION

Contribution ID: 289

Type: 1 - Scientific Poster

## Exercise for bone metastases: Effects on physical function, symptoms, and quality of life –A scoping review

Wednesday 22 July 2026 12:55 (20 minutes)

**Background:** Although exercise therapy has the potential to address physical decline, symptoms, and reduced quality of life (QOL) in patients with bone metastases, its effectiveness has not been sufficiently examined. This scoping review aimed to identify, summarize and map the relevant literature that provides information on the effects of exercise on physical function, symptoms, and QOL in patients with bone metastases.

**Methods:** A systematic search of PubMed, the Cochrane Library, Web of Science, and CINAHL was conducted from inception to December 2024. Studies examined the effects of exercise on physical function, symptoms, and QOL were included.

**Results:** Following the eligibility assessment, 15 studies (eight randomized controlled trials [RCTs] and seven non-RCTs) were included from 1,060 records. Most of the primary tumors were mixed cancer types or prostate cancer. The outcomes included measures of physical function, such as muscle strength, physical performance, exercise tolerance, balance, and body composition; bone mineral density; and symptom measures, including pain, fatigue, psychological status, and bone metastasis-specific symptom scales. The outcomes also included comprehensive QOL measures. Five interventions were found to be effective for improving physical function, one for bone mineral density, four for pain, two for fatigue and psychological distress, and five for QOL.

**Conclusion:** While current evidence suggests that exercise may positively influence outcomes, it is insufficient to determine the full effects of exercise and the most effective exercise regimens. Future studies should clarify whether exercise improves these outcomes and identify optimal exercise regimens for patients with bone metastases.

### Keywords

Exercise oncology; bone metastases; advanced cancer; scoping review

### Conflict of Interest & Ethical Approval

yes

### Abstract submitters declaration

yes

**Author:** FUKUSHIMA, Takuya

**Co-authors:** Dr OCHI, Eisuke; Dr NAKANO, Jiro; Dr LEE, Kyuwan; OGUSHI, Naoya; Mr TOMODA, Ry-ohai

**Presenters:** Dr OCHI, Eisuke; FUKUSHIMA, Takuya

**Session Classification:** Poster Session