

# Effect of exercise on cancer-related fatigue (CRF) in patients with prostate cancer: A systematic review

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## Abstract

**Background:** Exercise has been broadly applied to many cancer patients to improve cancer-related fatigue in recent years. However, its effect remains mixed to date.

**Objective:** The purpose of this systematic review was to explore the effect of exercise on cancer-related fatigue in patients with prostate cancer, and to provide a theoretical basis for the symptom management of cancer-related fatigue.

**Methods:** We searched the literature about RCTs and/or CCTs of evaluating the effect of exercise on cancer-related fatigue in patients with prostate cancer from the following databases as of October 31, 2019: Medline, Embase, CINAHL, Cochrane Library, CNKI, and CBM. We also manually searched the reference lists of the retrieved papers to identify potentially relevant studies. Two researchers independently extracted and assessed the relative data from eligible studies. Meta-analysis was performed using RevMan 5.3.5 version software. The scores of cancer-related fatigue were synthesized using the mean difference (MD) and 95% confidence interval (CI). The statistical heterogeneity of the included studies was analyzed by calculating the  $I^2$  statistic and applying a  $\chi^2$  test.

**Results:** A total of nine RCTs were included in our systematic review. All the included studies had a moderate possibility of risk-of-bias because of low methodological quality. Meta-analysis result showed that compared with the control group, the exercise group had lower average scores of cancer-related fatigue (MD=-3.11, 95%CI [-5.15, -1.07],  $P=0.003$ ).

**Conclusion:** Exercise is more effective at reducing the scores of cancer-related fatigue in patients with prostate cancer, which is worth popularizing and applying in hospital and community. Considering the limitations of the included studies, more robust RCTs are needed to further confirm our conclusion.

## Biography:

Song Wang is a PhD candidate at West China School of Nursing in Sichuan University. Before his PhD candidate, he was a nursing teacher at Bengbu Medical College, Anhui Province, China. His research focuses on chronic disease nursing and cancer care. He has published more than ten papers in reputed Chinese journals.

## Speaker Publications:

1. Wang X.S. Pathophysiology of cancer-related fatigue. Clin. J. Oncol. Nurs. 2008;12:11–20. doi: 10.1188/08.CJON.S2.11-20.
2. Wang X.S., Zhao F., Fisch M.J., O'Mara A.M., Cella C., Mendoza T.R., Cleeland C.S. Prevalence and characteristics of moderate to severe fatigue: A multicenter study in cancer patients and survivors. Cancer. 2014;120:425–432. doi: 10.1002/cncr.28434.

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