

Postdiagnosis Exercise and Mortality Risk Among Patients With Cancer

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In a study reported in the [Journal of Clinical Oncology](#), Lavery et al found that long-term cancer survivors who engaged in postdiagnosis exercise consistent with national guidelines had reduced all-cause mortality, with reductions seen in both cancer and noncancer mortality.

Key Findings

The study involved patient-reported data on exercise among 11,480 patients enrolled in the Prostate, Lung, Colorectal, and Ovarian cancer screening trial who were diagnosed with cancer. After a median follow-up of 16 years from diagnosis, 4,665 patients had died, with death due to cancer reported in 1,940 patients and to other causes in 2,725. A total of 4,374 patients were defined as exercisers (met national exercise guidelines) and 7,106 as nonexercisers (did not meet exercise guidelines).

In multivariate analysis, exercise consistent with guidelines was associated with a significantly reduced risk of all-cause mortality vs nonexercise (hazard ratio [HR] = 0.75, 95% confidence interval [CI] = 0.70–0.80). Compared with nonexercisers, exercisers had significant reductions in both cancer mortality (HR = 0.79, 95% CI = 0.72–0.88) and mortality from other causes (HR = 0.72, 95% CI = 0.66–0.78).

The inverse relationship observed between exercise and cause-specific mortality varied according to exercise dose.

Exercise consistent with national guidelines was associated with significantly reduced risk for all-cause mortality among patients with breast, endometrial, head and neck, hematopoietic, prostate, and renal cancers; hazard ratios vs nonexercise ranged from 0.41 (95% CI = 0.24–0.72) for endometrial cancer to 0.78 (95% CI = 0.70–0.86) for prostate cancer.

Exercise consistent with guidelines was associated with significantly reduced risk for cancer mortality among patients with renal (HR = 0.34, 95% CI = 0.15–0.75) and head and neck cancers (HR = 0.49, 95% CI = 0.25–0.96).

Significantly reduced risk of mortality from other causes was observed among exercisers with breast, colon, endometrial, hematopoietic, and prostate cancers; hazard ratios ranged from 0.41 (95% CI = 0.21–0.81) for endometrial cancer to 0.75 (95% CI = 0.59–0.96) for breast cancer.

The investigators concluded, “In this pan-cancer sample of long-term cancer survivors, exercise consistent with guidelines was associated with substantial all-cause mortality benefit driven by both reductions in cancer and noncancer mortality. The cause-specific impact of exercise differed as a function of cancer site.”

Lee W. Jones, PhD, of the [Department of Medicine, Memorial Sloan Kettering Cancer Center](#), is the corresponding author for the *Journal of Clinical Oncology* article.

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