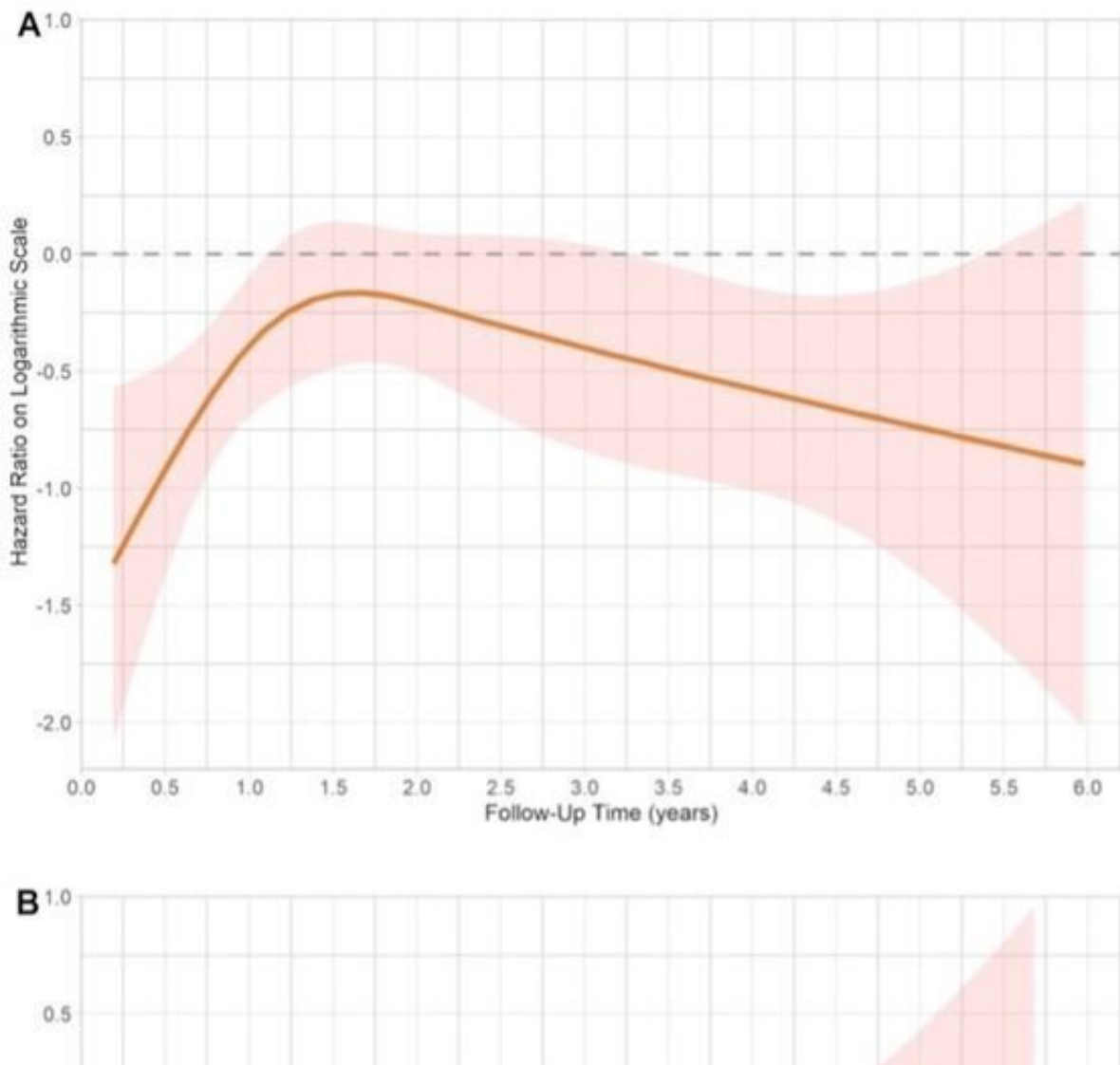


Study shows physical activity prevents cancer recurrence in patients previously treated for colon cancer

March 21 2023



Plots of the confounder-adjusted continuous-time estimate of the log-hazard

ratios for (A) disease-free survival, (B) time to recurrence and (C) overall survival by physical activity group over the follow-up period, with 95% pointwise CIs. Values less than 0 indicate a benefit associated with physical activity. For example, a value of -0.35 on the log-hazard scale is a HR of 0.70, comparing physically active to physically inactive groups ($e^{-0.35} = 0.70$), a 30% relative reduction in the risk of an event. Credit: *British Journal of Sports Medicine* (2023). DOI: 10.1136/bjsports-2022-106445

Researchers, led by Pennington Biomedical Research Center's Dr. Justin Brown, have found that physical activity can prevent, and not just delay, cancer recurrence in patients previously treated for colon cancer.

"In this observational study of patients with stage III [colon cancer](#), postoperative [physical activity](#) is associated with improved [disease-free survival](#) by lowering the recurrence rate within the first year of treatment, which translates into an overall survival benefit," the researchers concluded in an article published in the *British Journal of Sports Medicine*.

These findings could have an impact on [clinical practice](#) in the future by refining the understanding of how physical activity improves cancer survivorship in a manner relevant to tumor biology and cancer care delivery. This study may be particularly relevant to patients who seek to understand the optimal time to begin physical activity to reduce their [cancer recurrence](#) risk.

"With March being National Colorectal Cancer Awareness Month, the timing of these findings are especially relevant for so many people around the country, and the world, who have been treated for colon cancer in the past," said Brown, who serves as Director of the Cancer Metabolism Program at Pennington Biomedical. Brown's father died from [metastatic colorectal cancer](#) at age 48, which has fortified his

lifelong commitment to conducting [innovative research](#) to help colorectal cancer survivors live longer and healthier lives.

Between June 2010 and November 2015, 1,696 patients from 654 academic and community oncology centers in the United States and Canada were enrolled in the prospective nested cohort study. Physical activity was calculated based on self-reporting during and after chemotherapy.

During the study, the rate of cancer recurrence in physically active patients never exceeded that of physically inactive patients, and the disease-free survival benefit of physical activity persisted for approximately one year after surgical resection, and the overall survival benefit of physical activity persisted for approximately three years after surgery.

Physical activity is known to be safe for cancer survivors and is recommended during chemotherapy. The researchers found that the benefits from being physically active on cancer recurrence is larger if the patient is active shortly after surgery. Trials have also shown that physical activity during chemotherapy improves quality of life and reduces fatigue. Long term benefits of physical activity also include a lower risk of cardiovascular disease.

"Pennington Biomedical, especially with researchers like Dr. Justin Brown, is helping lead the way for cancer and metabolic disease research for the betterment of those in Louisiana and beyond. Biomedical research, with a particular focus on cancer, is also one of the pillars of LSU President William F. Tate IV's Scholarship First Agenda," said Dr. John Kirwan, Pennington Biomedical Executive Director.

More information: Justin C Brown et al, Association between physical activity and the time course of cancer recurrence in stage III

colon cancer, *British Journal of Sports Medicine* (2023). [DOI: 10.1136/bjsports-2022-106445](https://doi.org/10.1136/bjsports-2022-106445)

Provided by Pennington Biomedical Research Center

Citation: Study shows physical activity prevents cancer recurrence in patients previously treated for colon cancer (2023, March 21) retrieved 5 May 2024 from <https://medicalxpress.com/news/2023-03-physical-cancer-recurrence-patients-previously.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.