

# Colon Cancer Survivors Suffer Less Recurrence and Live Longer with Healthy Lifestyle, Suggests A New Prediction Model

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Colon cancer patients who have a healthier diet and lifestyle are predicted to live longer and have a lower risk of recurrence compared to patients with unhealthier habits, regardless of tumor characteristics, suggests a new paper that focuses on predicting survival outcomes for stage 3 colon cancer patients. Improvements in survival when adding healthy habits were especially meaningful for colon cancer patients categorized as poor-risk.

The research marks the first time diet and lifestyle habits were incorporated into the standard prediction models for this cancer, offering important insights into how lifestyle habits can play a critical role in survivorship.

The [study](#) was published in the Journal of Clinical Oncology.

The research builds on an increasing body of evidence suggesting that healthy eating and body weight, physical activity and a host of other lifestyle factors may improve survivors' health and lengthen survival. We've [written](#) about some of that [research](#):

## Adding healthy lifestyle habits predicts a longer life

To develop the model, the researchers used data from approximately 1,000 colon cancer patients who were part of [National Cancer Institute](#) chemotherapy trials. Previous research had led the authors to focus on specific diet and lifestyle factors in their models, including coffee, nuts, sugar-sweetened beverages, refined grains, lycopene-rich vegetables, physical activity, aspirin and BMI. Patients had filled out questionnaires about their diet, physical activity habits and other lifestyle factors periodically through and after treatment.

After a median follow up of slightly more than 7 years, 311 people had died and 350 had experienced recurrences. The researchers first used the standard prediction model based on clinical and other medical characteristics, such as tumor location. Then they repeated the analysis with patients' diet and lifestyle factors incorporated into the model.

The paper found that when incorporating lifestyle into the model, patients who maintained a healthy diet and lifestyle were predicted to live longer and have reduced risk of cancer recurrence. By adding healthy lifestyle habits to the established model, researchers were able to improve the accuracy of the prediction models.

Then the authors devised hypothetical scenarios that would separate patients into high, average and poor risk categories depending upon their risk for five-year survival after treatment. They calculated risk levels using tumor characteristics, family history, age and other recognized clinical risk factors. Incorporating diet and lifestyle factors into the model made a difference in health outcomes among all groups, with those having the worse prognosis seeing the strongest effects.

Among patients at poor risk for survival, those having the most favorable diet and lifestyle habits had a 45 percent reduced risk of predicted death and recurrence over 5 years compared to a 2 percent reduced risk based on clinical factors alone.

Conversely, having the unhealthiest diet and other lifestyle factors increased predicted death and recurrence at each risk level. A patient at average risk with the least healthy habits would increase their 5-year risk of death and recurrence over 50 percent compared to those with the healthiest habits, according to the model.

## Limitations and significance of the new model

Limitations of the findings include the self-reporting of data and possible lifestyle factors not included that could play a role in recurrence and death. The model may also not include the latest treatments, which could lead to underestimating survival rates.

This study only focuses on stage 3 colon cancer, when the tumor has spread to nearby lymph nodes, but has not yet spread to other parts of the body. More research is needed for other stages, the paper notes.

Yet the authors hope these survival prediction models could serve as tools for improved cancer survivorship health. Both patients and providers could utilize these models for diet and lifestyle modifications that could meaningfully improve patient outcomes, the authors write.

The study was supported by the [NCI](#) of NIH; see the [study](#) for full author support.

For more research and news on cancer survivorship and lifestyle habits, visit [AICR's Cancer Survival section](#).

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