

Breast cancer risk drops when diet includes walnuts, researchers find

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Dr. Elaine Hardman of Marshall University led a recent study that showed the risk of breast cancer dropped significantly in mice when their regular diet included a modest amount of walnut. Credit: Photo by Rick Hays/Marshall University.

The risk of breast cancer dropped significantly in mice when their regular diet included a modest amount of walnut, Marshall University researchers report in the journal *Nutrition and Cancer*.

The study, led by Elaine Hardman, Ph.D., of Marshall's Joan C. Edwards School of Medicine, compared the effects of a typical [diet](#) and a diet containing walnuts across the lifespan: through the mother from conception through weaning, and then through eating the food directly. The amount of walnut in the test diet equates to about 2 ounces a day for

humans.

Hardman said that during the study period, the group whose diet included walnut at both stages developed [breast cancer](#) at less than half the rate of the group with the typical diet. In addition, the number of tumors and their sizes were significantly smaller.

"These reductions are particularly important when you consider that the mice were genetically programmed to develop cancer at a high rate," Hardman said. "We were able to reduce the risk for cancer even in the presence of a preexisting genetic mutation."

The paper notes that dietary modification studies do not show whether benefits result from what is added to a diet or what is removed.

In this case, adding healthy fat and other components meant that unhealthy fat was reduced to keep total dietary fat balanced in the mice.

Hardman said other studies have clearly shown, however, that multiple ingredients in [walnuts](#) reduce the risk of cancer or slow its growth.

Using [genetic analysis](#), the Marshall study found that the walnut-containing diet changed the activity of multiple genes that are relevant to breast cancer in both mice and humans. Other testing showed that increases in [omega 3 fatty acids](#) did not fully account for the anti-cancer effect, and found that [tumor growth](#) decreased when dietary vitamin E increased.

Hardman said the findings highlight the vital role diet plays in health.

"Food is important medicine in our diet," she said. "What we put into our bodies makes a big difference – it determines how the body functions, our reaction to illness and health. The simple stuff really

works: eat right, get off the couch, and turn off the TV.

"The results of this study indicate that increased consumption of walnut could be part of a healthy diet and reduce risk for cancer in future generations," she said.

Provided by Marshall University Research Corporation

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