

## Large Analysis Finds That Breast Cancer Patients Who Take Aspirin Reduce Their Risk of Breast Cancer Spread and Death by Nearly Half

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An analysis of data from the Nurse's Health Study, a large, ongoing prospective observational study, shows for the first time that women who have completed treatment for early-stage breast cancer and who take aspirin have a nearly 50 percent reduced risk of breast cancer death and a similar reduction in the risk of metastasis. The findings were reported in the *Journal of Clinical Oncology*.

Investigators report it is not yet clear how aspirin affects cancer cells, but they speculate it decreases the risk of cancer metastasis by reducing inflammation, which is closely associated with cancer development. Prior studies have also suggested that aspirin inhibits cancer spread: one study found that people with colon cancer who took aspirin lived longer than those who did not, and laboratory studies have also shown that aspirin inhibited the growth and invasiveness of breast cancer cells.

In this analysis, researchers evaluated data from the Nurses' Health Study, which included 4,164 female nurses in the United States (ages 30 to 55 in 1976) who were diagnosed with stage I, II, or III breast cancer between 1976 and 2002 and were followed through June 2006. They examined patients' use of aspirin for one or more years after a breast cancer diagnosis (when patients would have completed treatment such as surgery, radiation therapy, and/or chemotherapy) and the frequency of metastasis and breast cancer death. (The authors emphasized that patients undergoing active treatment should not take aspirin due to potential interactions that can increase certain side effects.)

A total of 400 women experienced metastasis, and 341 of these died of breast cancer. Women who took aspirin two to five days per week had a 60 percent reduced risk of metastasis and a 71 percent lower risk of breast cancer death. Those who took aspirin six or seven days a week had a 43 percent reduced risk of metastasis and a 64 percent lower risk of breast cancer death. The risk of breast cancer metastasis and death did not differ between women who did not take aspirin and those who took aspirin once a week.

Researchers also found that women who took non-aspirin non-steroidal inflammatory drugs (NSAIDs), such as ibuprofen, six or seven days a week also had a reduced risk of breast cancer death (a 48 percent reduction), but women who took NSAIDs less frequently and those who used acetaminophen (Tylenol) did not experience such a benefit.

While the investigators did not have data on aspirin dose, they noted that women who took aspirin regularly most likely took a low dose (81 mg/day), which is associated with heart disease prevention.

### What This Means for Patients

This is the first study to find that aspirin can significantly reduce the risk of cancer spread and death for women who have been treated for early-stage breast cancer. If these findings are confirmed in other clinical trials, taking aspirin may become another simple, low-cost and relatively safe tool to help women with breast cancer live longer, healthier lives.

However, it is important to note that aspirin is not for everyone because it can cause stomach bleeding. Do not begin taking aspirin every day without first speaking with your doctor.

### Helpful Links

- [Guide to Breast Cancer](#) [2]
- [Risk Factors and Prevention](#) [3]

#### Links:

[1] <http://www.jco.org>

[2] <http://www.cancer.net/patient/Cancer+Types/Breast+Cancer>

[3] <http://www.cancer.net/patient/All+About+Cancer/Risk+Factors+and+Prevention>