

# Long-term calcium-channel blocker use for hypertension associated with higher breast cancer risk

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Long-term use of a calcium-channel blocker to treat hypertension (high blood pressure) is associated with higher breast cancer risk, according to a report published by *JAMA Internal Medicine*, a JAMA Network publication.

Antihypertensive medications are the most commonly prescribed class of drugs in the United States and in 2010 totaled an estimated 678 million filled prescriptions, Christopher I. Li, M.D., Ph.D., of the Fred Hutchinson Cancer Research Center, Seattle, and colleagues write in the study background.

"Evidence regarding the relationship between different types of [antihypertensives](#) and breast [cancer risk](#) is sparse and inconsistent, and prior studies have lacked the capacity to assess impacts of long-term use," the study notes.

The population-based study in the three-county Seattle-Puget Sound metropolitan area included women ages 55 to 74 years: 880 of the women had invasive ductal breast cancer, 1,027 had invasive lobular breast cancer and 856 of them had no cancer and served as the control group. Researchers measured the risk of breast cancer and examined the recency and duration of use of antihypertensive medications.

According to the results, current use of calcium-channel blockers for 10

or more years was associated with higher risks of ductal breast cancer (odds ratio [OR], 2.4) and lobular breast cancer (OR, 2.6). The relationship did not vary much based on the type of calcium-channel blockers used (short-acting vs. long-acting or dihydropyridines vs. non-dihydropyridines). Other antihypertensive medications - diuretics,  $\beta$ -blockers and angiotensin II antagonists – were not associated with increased breast cancer risk, the results indicate.

"While some studies have suggested a positive association between calcium-channel blocker use and breast cancer risk, this is the first study to observe that long-term current use of calcium-channel blockers in particular are associated with [breast cancer](#) risk. Additional research is needed to confirm this finding and to evaluate potential underlying biological mechanisms," the study concludes.

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