

Blood Pressure Drugs Linked to Increased Breast Cancer Risk

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Calcium is a mineral with countless functions in the human body. One of these important functions is to regulate smooth muscle contraction and relaxation. Contraction and relaxation of the muscle layer of arteries increases or decreases blood pressure and is highly dependent on changes in the intracellular calcium concentration. One class of blood pressure-lowering medications called calcium channel blockers reduces blood pressure by limiting calcium entry into the muscle cells in the artery wall, thereby limiting muscle contraction.

More than half of women over the age of 55 and 70 percent of women over 65 in the United States have elevated [blood pressure](#).¹ There are a number of commonly prescribed blood pressure-lowering medications, including beta-blockers, angiotensin-converting enzyme (ACE) inhibitors, diuretics, angiotensin receptor blockers, and calcium channel blockers. As you might expect given the rates of high blood pressure in the U.S., blood pressure-lowering drugs are some of the most commonly prescribed drugs. Actually, when all antihypertensives are counted together, they are the most commonly prescribed class of drugs in the U.S. About 27 percent of Americans take one of these types of blood pressure-reducing drugs.²



A new study has compared the blood pressure medications taken by women (55-74 years old) who had or had not been diagnosed with one of the two most common subtypes of [breast cancer](#). When the authors looked at specific drugs and how long women had used them, they found an association between the long term use of calcium channel blockers and breast cancer; **women who had taken calcium channel blockers for at least ten years were more than twice as likely to be diagnosed with breast cancer**. There were no associations found for diuretics, beta-blockers or angiotensin receptor blockers.³

Several previous studies had investigated the relationship between blood pressure medications and breast cancer, and findings were varied. Though some studies did not find a link, at least three previous studies have hinted at associations between calcium channel blockers and cancer.⁴⁻⁶ This new study stands out because it was able to investigate long term (10 years or more) antihypertensive use. Although the new study did not find any associations between blood pressure medications other than calcium channel blockers with breast cancer, other studies have found increased risks associated with diuretics.⁶⁻⁸ Also, angiotensin receptor blockers have been linked to an increased risk of lung cancer.⁹

Because calcium has so many vital functions in the human body, it is not surprising that a drug affecting calcium dynamics could pose serious risk. In addition to muscle contraction, changes in intracellular calcium concentration are also thought to be a key signal that regulates apoptosis. This is an important point, since apoptosis — the programmed death of a damaged cell — is one of the body's natural defenses against cancer. One hypothesis is that calcium channel blockers could prevent apoptosis in cancerous cells, however data on the subject is mixed and more research is needed.¹⁰

Given the prevalence of hypertension and the ubiquity of blood pressure-lowering medications (calcium channel blockers are taken by 17.3% of women 65 and older),² the implications of a doubling of breast cancer risk would be huge. Women must know that they can reduce their blood pressure safely and naturally. By following a [Nutritarian](#) diet which emphasizes anti-cancer super foods ([G-BOMBS](#)), exercising regularly, maintaining a healthy weight, and avoiding salt, alcohol and caffeine, women can keep their blood pressure in a safe, healthy range without drugs and achieve substantial protection against [breast cancer](#) at the same time. Unlike drugs, with healthy lifestyle habits there are no risky side effects, only health benefits.