

Potential breast cancer prevention agent found to lower levels of 'good' cholesterol over time

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Exemestane steadily lowered levels of "good" cholesterol in women taking the agent as part of a breast cancer prevention study, say researchers at Georgetown Lombardi Comprehensive Cancer Center. Exemestane, an aromatase inhibitor used to treat estrogen receptor-positive breast cancer, is being tested to prevent breast cancer in women at an increased risk of developing the disease.

Georgetown researchers say their findings, presented at the 2011 CTRC-AACR San Antonio [Breast Cancer](#) Symposium (SABCS), suggest that the effect this agent has on [blood lipids](#) may prove to be significant for women at high risk for heart disease due to elevated [blood cholesterol](#), although no such effects have been seen yet in patients studied over two years of treatment.

There are two types of cholesterol transported in our blood—HDL and LDL. HDL cholesterol is known as "good" cholesterol, because high levels of it protect against heart attack. LDL cholesterol is known as "bad" cholesterol because it can buildup in the inner walls of the arteries that feed the heart and brain, and lead to atherosclerosis.

"Lower levels of the HDL, the [good cholesterol](#), have been shown to increase the risk of heart attack and stroke. While we found that exemestane lowers good cholesterol levels, the clinical significance of this decrease is unknown," says a study investigator, Margaret Gatti-

Mays, M.D. an intern in internal medicine at Georgetown.

The results come from a phase II multi-institutional study of women at increased risk for breast cancer that evaluated the safety and efficacy of exemestane over two years of therapy. The findings, from 31 patients, showed that the absolute change from the baseline HDL level at 3, 12, and 24 months were -8.0 mg/dL, -8.5 mg/dL, and -9.9 mg/dL, respectively. The rest of the [lipid](#) panel, including LDL (the bad cholesterol) was relatively unchanged.

"It is notable that both women taking and not taking lipid-lowering medication had decreases in HDL," Gatti-Mays says.

"Lower HDL levels are associated with an increased risk of heart disease, so if a patient has a low HDL level, exemestane may not be the best choice as a breast [cancer prevention](#) agent," says the study's senior investigator, Jennifer Eng-Wong, M.D., senior medical director of the Capital Breast Care Center at Georgetown Lombardi Comprehensive Cancer Center.

She adds that other anti-estrogen therapies designed to prevent breast cancer don't appear to lower HDL. "Less data is available on anastrozole and letrozole, which are other aromatase inhibitors, but they do not appear to lower HDL. Conversely, tamoxifen has an overall favorable effect on cholesterol."

"Exemestane has been shown to be an effective therapy in the prevention of breast cancer in postmenopausal women who have an increased risk of developing it. This study adds information that will help individualize care for these women though larger studies are needed to more fully evaluate the impact of [exemestane](#) on cholesterol and cardiovascular health," says Gatti-Mays.

Provided by Georgetown University Medical Center

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