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Statins raise risk of Type 2 diabetes in older women, study finds

Post-menopausal women who take statins to ward off heart attacks are more likely to develop Type 2 diabetes than those who do not, research indicates.

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Older women who take statin medications to ward off heart attacks are more likely to develop Type 2 diabetes than those who do not take the widely used cholesterol-lowering drugs, a study has found.

The report, published Monday in the Archives of Internal Medicine, showed that, in a large group of post-menopausal women, those who took a statin of any type were, on average, 48% likelier to develop Type 2 diabetes than those who didn't.

The heightened risk for diabetes was most pronounced in statin-taking women of Asian origin or those with a body mass index, or BMI, in the healthy range.

The authors did not recommend changes in current medical guidelines for statin use, and urged women taking statins not to stop.

But they said that future research on statins should examine gender and ethnic differences in responses to the medications. And they emphasized that changes in diet and exercise should be a first step for patients who are still healthy but who have risk factors for heart disease, including high cholesterol levels or markers for inflammation in their blood.

For women intent on heading off heart disease, "it is probably a very good idea to really look at all the risk factors and to be careful of initiating a statin where there are no risk factors or where there is just one," said coauthor Annie L. Culver, a University of Massachusetts pharmacologist.

Among the signs physicians assess in evaluating the heart risk of a still-healthy patient: a family history of heart attack, high LDL ("bad") cholesterol or very low HDL ("good") cholesterol, high blood pressure, obesity and elevated levels of C-reactive protein, an indication of inflammation. A patient who had already had a heart attack would almost certainly be prescribed a statin.

Cholesterol-lowering medications are the most widely prescribed class of drugs in the United States, and statins — marketed under such names as Zocor, Lipitor, Pravachol and Crestor — make up the bulk of the 255 million prescriptions dispensed each year, according to IMS Health, which tracks international healthcare trends.

Women are less likely than men to have heart attacks, and their use of statins has lagged behind that of men. Still, statin use among women is rising steeply. According to the Centers for Disease Control and Prevention, more than 1 in 3 older women — 36% of those between 64 and 74 and 39% of those 75 and over — take statins in a bid to prevent a first heart attack or to ward off a repeat heart attack. Almost half of all men in those age brackets take a statin.

The new study was based on data collected over 12 years on almost 154,000 women ages 50 to 79 who had participated in the landmark Women's Health Initiative, which explored the influence of diet, hormone treatment and other factors on the health of almost 162,000 women. But researchers not involved with the study said that its findings probably also applied to men.

Earlier research had suggested that both male and female patients taking statins are more likely to suffer metabolic disturbances, including insulin resistance, a harbinger of Type 2 diabetes in which the body's organs fail to use fuel efficiently. The observed effect has been more pronounced in women.

Still, as physicians and patients digest the latest research, the delicate calculation of risk and benefit is likely to change more for women than for men.

The evidence that statins drive down the risk of heart attacks is far better established for men than it is for women — partly because early trials on statins enrolled lots of men and very few women. Thus, in the case of men, the increased risk of diabetes while on a statin is offset by a much larger likelihood that the medication will prevent a heart attack or even death, said cardiologist Sanjay Kaul of the Cedars-Sinai Medical Center.

For a woman, Kaul said, "the benefits still outweigh the risks" but the evidence is not as strong

In an accompanying editorial, Dr. Kirsten L. Johansen of UC San Francisco said that the new study's findings might tip the balance against statin use for women who are at risk for heart disease but have not yet developed signs of it.

Previous studies have found that in this class of women, statins do not drive down the risk of dying of heart disease or other causes. Yet the new study found that the risk for developing diabetes was just as elevated for them.

The study also found that statin use increased the diabetes risk of Asian women the most, followed by white women and Latinas, and African American women the least.

Women with BMIs above 30 — the demarcation line for obesity — showed smaller increases in diabetes rates than women whose BMIs fell within the healthy range.

That finding — possibly the result of changes in women's fat distribution as a result of statin use — was surprising, Culver said.

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