

Vitamin B niacin offers no extra benefit to statin therapy in seniors already diagnosed with CAD

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The routine prescription of extended-release niacin, a B vitamin (1,500 milligrams daily), in combination with traditional cholesterol-lowering therapy offers no extra benefit in correcting arterial narrowing and diminishing plaque buildup in seniors who already have coronary artery disease, a new vascular imaging study from Johns Hopkins experts shows.

In tests on 145 Baltimore-area men and women with existing atherosclerosis, all over age 65, researchers found that after 18 months of drug therapy, reductions in arterial wall thickness were measurably no different between the half who took dual niacin-statin therapy and the rest who remained on statin therapy alone.

The results were the same whether they took any one of the three leading statin medications: atorvastatin (Lipitor), simvastatin (Zocor) or [rosuvastatin](#) (Crestor). Seniors on dual drug therapy had an average 5.4 cubic millimeter per month scale back in plaque buildup in the main neck artery, while those taking just a cholesterol-lowering statin medication came down by 4 cubic millimeters per month, a difference that researchers say is not statistically significant.

The team will present its findings Nov. 18 at the American Heart Association's (AHA) annual Scientific Sessions in Orlando.

According to senior study investigator and Johns Hopkins cardiologist João Lima, M.D., the lack of any discernible advantage occurred despite promising gains in bad ([LDL](#)) and good (HDL) blood cholesterol levels in those taking vitamin B niacin. Results showed that in the group taking both niacin and a statin, blood levels of LDL-cholesterol fell 5 percent more than in the group taking only statin medications. And levels of HDL jumped 14 percent more than in the statin-only group.

"Our findings tell us that improved cholesterol levels from taking combination vitamin B niacin and statin therapy do not necessarily translate into observable benefits in reversing and stalling carotid artery disease," says Lima, a professor of medicine and radiology at the Johns Hopkins University School of Medicine and its Heart and Vascular Institute. "This does not mean that niacin therapy may not have other cardiovascular benefits, but any such benefits are independent of reducing the amount of plaque buildup and patients should be aware of that."

"Our recommendation to physicians is that current national treatment guidelines, which recommend mainly statin therapy tailored to the severity of atherosclerosis for preventing arteries from reclogging and narrowing, appear to be sufficient and accurate for physicians and patients to follow," says Lima.

However, Lima cautions that an ongoing national study of the long-term vascular benefits of dual therapy and whether extended-release niacin, also known as nicotinic acid, lowers death rates from heart disease should provide more definitive data. Hopkins is participating in that research, as well. He also notes that extended-releases niacin used in this study is a prescription medication, and that it is not sold over the counter like many other vitamin B products.

"The real value in initially studying this particular group of people is that

these seniors are the ones who I am most likely to see in the hospital, the group most vulnerable to coronary artery disease and most at risk of suffering an arterial blockage, heart attack, or stroke," says lead study investigator Christopher Sibley, M.D. Nearly 17 million American adults are estimated to have some form of [coronary artery disease](#), resulting in more than 400,000 deaths each year.

"Practically speaking, carotid MRI scans are an option to assess the risk of patients based on the amount of plaque in their arteries, to better determine who needs aggressive statin therapy and to monitor how well they respond to treatment," says Sibley, an adjunct assistant professor at Johns Hopkins, as well as a staff clinician at the National Institutes of Health Clinical Center.

All study participants had one or more preexisting cardiovascular health issues, such as a previous heart attack, stroke, coronary artery bypass grafting to resupply blood to the heart, severe chest pain, or angioplasty with the placement of wire stents to keep arteries open.

At the start of the study, participants received an MRI scan of their carotid artery, and again every six months thereafter. The four sets of carotid images provided what Sibley says is "an important window" into what is going on in the body's network of veins and arteries. He notes that the neck artery is important not just because it serves as the main blood supply to the brain, but also because narrowing in the carotid artery reflects the risk of future heart attack.

Sibley says that the team has begun to analyze blood samples collected as part of the study, searching for chemicals that might also signal a change in arterial plaque buildup and progressive arterial narrowing.

Source: Johns Hopkins Medical Institutions

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