

Metabolic abnormalities may increase cardiovascular risk more in black women than white women

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Large waistline, cholesterol disorders and other metabolic abnormalities may increase the risk of cardiovascular disease more among black women than among white women, according to new research in *Journal of the American Heart Association*.

Previous studies have focused primarily on white participants and found that obesity without a clustering of at least three metabolic disorders ([metabolic syndrome](#)) was not associated with increased cardiovascular [disease risk](#). The metabolic abnormalities included in the definition of the metabolic syndrome are higher waist circumference, elevated triglycerides, low levels of "good" cholesterol, high blood pressure and impaired glucose metabolism.

Researchers examined cardiovascular disease risk according to weight classification and metabolic health status across different racial and ethnic groups among 14,364 participants from the Women's Health Initiative, a national study of postmenopausal [women](#) ages 50 to 79. About 47 percent of the participants were white, 36 percent were black and 18 percent were Hispanic. Overweight is roughly 10 percent over ideal body weight. Obesity is generally 30 pounds above ideal weight.

In 13 years of follow-up, 1,101 women had a cardiovascular event for the first time (coronary heart disease or ischemic stroke).

Researchers found:

- Among black women with two or three metabolic abnormalities, relative cardiovascular disease risk was more than doubled (117 percent) for women who were obese and 77 percent higher for women

who were overweight.

- But for white women with two or three metabolic abnormalities, being overweight or obese conveyed a cardiovascular event rate that was similar to that of [normal weight](#) white women without metabolic disorders.
- Among women without the metabolic syndrome, black obese women had almost a 2-fold increased cardiovascular disease risk compared with normal weight black women, while black overweight women had slightly increased cardiovascular disease risk.
- On the other hand, among white women without the metabolic syndrome, overweight and obese women had a cardiovascular disease risk similar to that of normal weight white women.

"It appeared that the cardiovascular disease risk was elevated in black women by the presence of only two or three metabolic abnormalities to a degree that would require four or more metabolic abnormalities among white women," said Michelle Schmiegelow, M.D., study lead author and a Ph.D. student and research fellow in the cardiology department at University Hospital Gentofte in Denmark (former visiting scholar at Stanford University School of Medicine, Stanford University).

Overweight and obese black women had elevated [cardiovascular disease](#) risk compared with normal weight black women even when they had only two metabolic problems. The number of events was low for Hispanic women so that data was not included in the analysis.

This study suggests that at least in postmenopausal women, the metabolic syndrome may underestimate [cardiovascular disease risk](#) in [black women](#) and overestimate it in [white women](#),

Schmiegelow said. Instead, an individualized approach should be used in which the type and sum of metabolic abnormalities in light of the woman's overall risk profile should be considered.

The findings also stress the importance of the need for lifestyle intervention and preventing the development of [metabolic abnormalities](#), particularly in black overweight and obese women, for whom the benefits may be particularly large, she noted.

The American Heart Association recommends that all obese patients lose weight.

Obesity increases your risk for [heart disease](#) and stroke and is also a major cause of gallstones, osteoarthritis and respiratory problems. The Association recommends that obese patients participate in a medically supervised weight loss program two or three times a month for at least six months. The treatment plan for weight loss involves eating fewer calories than your body needs, getting aerobic exercise for 30 minutes most days of the week and learning to change unhealthy behaviors.

Provided by American Heart Association

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