

In women, higher body fat may protect against heart disease death, study shows

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A new UCLA study shows that while men and women who have high muscle mass are less likely to die from heart disease, it also appears that women who have higher levels of body fat—regardless of their muscle mass—have a greater degree of protection than women with less fat.

The researchers analyzed [national health](#) survey data collected over a 15-year period and found that [heart disease](#)-related death in women with high muscle mass and high body fat was 42% lower than in a comparison group of women with low muscle mass and low body fat. However, women who had high muscle mass and low body fat did not appear have a significant advantage over the comparison group.

Among men, on the other hand, while having high

muscle mass and high body fat decreased their risk by 26% (compared to those with low muscle mass and low body fat), having high muscle mass and low body fat decreased their risk by 60%.

The American Heart Association estimates that 5 million men and 3 million women have heart attacks annually. Yet despite this wide gender gap and an overall decrease in [heart attack](#)-related deaths for both men and women over the past 50 years, an equal number of men and women still die from heart disease.

In addition, mortality among women over those five decades has fallen at a slower rate than for men, and the incidence of heart attacks appears to be increasing among women between the ages of 35 and 54. Recent research has also found that women have significantly higher levels of risk factors associated with adverse heart disease than men.

The researchers analyzed body composition data from the National Health and Nutrition Examination Survey 1999-2004 and cardiovascular disease data from the National Health and Nutrition Examination Survey 1999-2014. They evaluated 11,463 individuals aged 20 and older, who were then divided into four body-composition groups: low muscle mass and low body fat, low muscle and high fat, high muscle and low fat, and high [muscle](#) and high fat. Heart disease-related mortality rates were then calculated for each of these groups.

The findings highlight the importance of recognizing physiological differences between women and men when considering body composition and the risk of death from [heart](#) disease, particularly when it comes to how differences in [body](#) fat may modify that risk.

The research also underscores the need to develop sex-appropriate guidelines with respect to exercise and nutrition as preventive strategies against the

development of cardiovascular disease. Even with the current emphasis by health experts on reducing fat to lower disease risk, it may be important for [women](#) to focus more on building [muscle mass](#) than losing weight, the study authors say.

The study is published in the peer-reviewed *Journal of the American Heart Association*.

More information: Preethi Srikanthan et al, Sex Differences in the Association of Body Composition and Cardiovascular Mortality, *Journal of the American Heart Association* (2021). [DOI: 10.1161/JAHA.120.017511](#)

Provided by University of California, Los Angeles

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