Higher muscle mass associated with lower mortality risk in people with heart disease

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Researchers from the David Geffen School of Medicine at UCLA found that cardiovascular disease patients who have high muscle mass and low fat mass have a lower mortality risk than those with other body compositions. The findings also suggest that regardless of a person's level of fat mass, a higher level of muscle mass helps reduce the risk of death.

This findings indicate the importance of assessing body composition as a way to help predict cardiovascular and total mortality in people with cardiovascular disease.

In previous studies on the relationship between body composition and mortality, the researchers used a simpler clinical measure of body composition called the bio electrical impedance scale. They noted a possible protective effect of muscle mass on both mortality and metabolism in healthy people. The new study extends the findings from the earlier research using dual X-ray absorptiometry, a more rigorous method of measuring body composition.

The researchers examined data from the National Health and Nutrition Examination Survey, 1999 to 2004, of 6,451 participants who had prevalent cardiovascular disease. Each subject was categorized into one of four groups:

- low muscle/low fat mass
- low muscle/high fat mass

- high muscle/low fat mass
- high muscle/high fat mass

Those with high muscle mass and low fat mass had the lowest risk of cardiovascular and total mortality.

Because people with higher muscle mass were more likely to have a high body mass index, the findings could explain the "obesity paradox," which holds that people with a higher BMI have lower mortality levels.

The findings also highlight the importance of maintaining muscle mass, rather than focusing on weight loss, in order to prolong life, even in people who have a higher cardiovascular risk. The authors suggest that clinicians encourage their patients to participate in resistance exercises as a part of healthy lifestyle changes, rather than focusing primarily on, and monitoring, weight loss.

More information: Preethi Srikanthan et al. Relation of Muscle Mass and Fat Mass to Cardiovascular Disease Mortality, *The American Journal of Cardiology* (2016). DOI: 10.1016/j.amjcard.2016.01.033

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