

Contrary to earlier findings, excess body fat in elderly decreases life expectancy

August 11 2011

While some past studies have shown that persons carrying a few extra pounds in their 70s live longer than their thinner counterparts, a new study that measured subjects' weight at multiple points over a longer period of time reveals the opposite.

Research from Adventist Health Studies recently published in the [Journal of the American Geriatrics Society](#) showed that men over 75 with a [body mass index](#) (BMI) greater than 22.3 had a 3.7-year shorter life expectancy, and women over 75 with a BMI greater than 27.4 had a 2.1-year shorter life expectancy. Generally, a BMI between 18.5 and 24.9 is considered normal [weight](#), and a BMI of 25 to 29.9 is considered overweight. A BMI of 30 or more is considered obese.

Previous work in this area by others found a protective association for a high body weight among the elderly. Pramil N. Singh, DrPH, lead author of the paper and an associate professor in the School of Public Health at Loma Linda University, says the data from many past studies is problematic because only a single baseline measure of weight was taken, which does not account for weight changes or how weight changes affect [life expectancy](#). Additionally, most past studies had mortality surveillance of fewer than 19 years, which analyses have shown to be an inadequate amount of time to study risks associated with weight.

"We had a unique opportunity to do 29 years of follow-up with a cohort that was also followed for mortality outcomes," Dr. Singh said. "Across this long period of time, we had multiple measures of body weight,

which provided a more accurate assessment."

The study looked at 6,030 adults who never smoked and who were free of major [chronic diseases](#) at enrollment. It then examined only those adults who maintained a stable weight. This was done in an effort to exclude individuals who, for example, were in the normal weight category because they experienced significant weight loss due to a disease. Therefore their death would not have been related to their normal weight, but rather to the disease that caused them to reach normal weight.

"When you control for confounding by disease-related weight loss, overweight and obesity remain a risk for persons over the age of 75," Dr. Singh said. "This suggests that elderly individuals of normal weight should continue to maintain their weight."

Researchers noted a difference between genders in that men had a higher sensitivity to body fat than women. Men started to experience a greater risk of mortality at a BMI of 22.3, while this risk did not appear for women until a BMI of 27.4. One possible reason for the difference between genders, Dr. Singh said, is that [body fat](#) is the primary source of estrogen in post-menopausal females, and a minimum level of estrogen in those years can be protective against heart disease and hip fractures.

"This is not to say that extra weight is good for women over 75," Dr. Singh said, "but rather that the negative effects of extra weight in women over 75 appear at a higher weight than in males."

The study population itself is unique in that all were Seventh-day Adventists, who, because of church recommendations, are lifelong non-smokers, consume little if any alcohol, are more physically active, and consume less meat than the general population. This means those who maintained a lower BMI did so intentionally with healthy lifestyle

choices rather than as a result of smoking for weight control or as a result of poverty-related factors. Dr. Singh said further studies are needed to understand the positive and negative effects of lifestyle patterns that help individuals maintain low body weight over long periods of time.

Provided by Loma Linda University Adventist Health Sciences Center

Citation: Contrary to earlier findings, excess body fat in elderly decreases life expectancy (2011, August 11) retrieved 29 April 2024 from <https://medicalxpress.com/news/2011-08-contrary-earlier-excess-body-fat.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.