## **Heavier People Have Heart Attacks Earlier**

12 years sooner for the most obese, new research finds

## By Ed Edelson HealthDay Reporter

TUESDAY, Sept. 9 (HealthDay News) -- The fatter you are, the more likely you are to have a heart attack earlier in life, a new study shows.

"Basically, it is showing that as people got progressively more obese, the rate at which they had heart attacks early went up dramatically," said Dr. Eric D. Peterson, a professor of medicine at Duke University Medical Center's Division of Cardiology and a member of the group reporting the findings.

Cardiologists at several institutions studied data on more than 111,000 people who had heart attacks, looking specifically at body mass index (BMI), a measure of obesity. Someone with a BMI of 30 or above is regarded as obese; a person 5 feet, 7 inches tall who weighs 192 pounds has a BMI of 30.

The average age of a first heart attack for people with a BMI of 18.5 or under was 74.6 years. For people with a BMI of 40 or over, it was 58.7 years. The age at which a first heart attack occurred went up steadily with increasing BMI -- 3.5 years earlier for a BMI of 25 to 30; 6.8 years earlier for a BMI 30 to 35; 9.4 years for a BMI of 35 to 40; and 12 years earlier for a BMI 40 or higher.

"That is a pretty profound difference," Peterson said.

One reason for the difference is that obese people are more likely to have other risk factors for heart disease, such as diabetes, high cholesterol and high blood pressure. "But even after adjusting for those factors, just being heavy added considerable risk," Peterson said.

The findings are published in the Sept. 16 issue of the Journal of the American College of Cardiology.

Another study in the same issue of the journal provided evidence for a mechanism by which obesity increases cardiac risk. Researchers at Leiden University in the Netherlands had obese people with diabetes practice "prolonged calorie restriction," or dieting in layman's terms.

BMI went down. But sophisticated tests such as magnetic resonance imaging and biochemical studies also showed that their bodies were better able to manage blood sugar levels and that there were beneficial effects on heart muscle cells.

"The news here is that heart muscle in obese diabetic individuals can be mobilized by eating less," said Dr. Heinrich Taegtmeyer, professor of medicine in cardiology at the University of Texas Health Sciences Center in Houston and co-author of an accompanying editorial comment.

To be sure, the mechanism by which dieting helps heart cells "is only vaguely understood," Taegtmeyer said. "It gets very biochemical and very molecular." A simple explanation is that caloric restriction activates an enzyme that prevents fat from being deposited in heart cells, he said. Whatever the mechanism, the new research provides "one more reason not to be fat," Peterson said. Some obese people have taken comfort from studies indicating that they're more likely to survive a heart attack than thinner people, he noted. The new study indicates that the reason for that better survival is the heart attack in fat people occurs earlier in life, when people are otherwise sturdier, he said.

"If you had your choice, you would choose not to have a heart attack in the first place," Peterson said. Both Peterson and Taegtmeyer cited animal studies showing that strict caloric restriction lengthens life.

"It has been shown in virtually every organism, from yeast to flies to worms to mammals, that caloric restriction heightens life expectancy," Taegtmeyer said. "The heart functions better with caloric restriction."

## More information

Learn more about obesity and its ill effects from the U.S. National Library of Medicine.

**SOURCES:** Eric D. Peterson, M.D., M.P.H., FAHA, FACC, professor of medicine, Division of Cardiology, Duke University Medical Center, Durham, N.C.; Heinrich Taegtmeyer, M.D., professor of medicine, University of Texas Health Sciences Center, Houston; Sept. 16, 2008, *Journal of the American College of Cardiology* 



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