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Exercise related to lower heart disease risk in overweight women

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The risk of heart disease in women associated with being overweight or obese is reduced but not eliminated by higher levels of physical activity, according to a report in the April 28 issue of Archives of Internal Medicine, one of the JAMA/Archives journals.

Both obesity and physical inactivity are modifiable risk factors for coronary heart disease, according to background information in the article. “Obesity is recognized as a major public health issue owing to its dramatically rising prevalence and deleterious impact on many chronic diseases, including coronary heart disease,” the authors write. “In addition, the majority of Americans are inactive and not meeting the Surgeon General’s goal for adequate physical activity.”

Amy R. Weinstein, M.D., M.P.H., of Beth Israel Deaconess Medical Center, Boston, and colleagues studied the interaction between these two risk factors in 38,987 women who were participants in the recently completed Women’s Health Study. At the beginning of the study in 1992, the women reported their height and weight (used to calculate their body mass index or BMI), the average time per week spent performing physical activities, other health habits and medical history. They were then followed for an average of 10.9 years and completed regular follow-up questionnaires about heart events and risk factors.

At the beginning of the study, 34 percent of women were considered physically active based on the Surgeon General’s guidelines, 31 percent were overweight and 18 percent were obese. During the follow-up

period, 948 women developed coronary heart disease. Both BMI and physical activity were individually associated with the risk of heart disease. Risk was lowest for women of normal weight who were active, slightly higher for women of normal weight who were inactive, higher still for women who were overweight or obese and active, and highest for women who were overweight or obese and inactive.

Fat cells or adipocytes release chemicals that may have adverse effects on the heart by accelerating the hardening of the arteries and increasing inflammation, clotting and dysfunction of the blood vessels, the authors note. Physical activity, on the other hand, improves blood vessel function and reduces the risk for blood clots. “We postulate that the beneficial effect of physical activity may directly reduce and combat the ill effect of the prothrombotic factors released by adipocytes,” the authors write.

Source: JAMA and Archives Journals

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