

# Lifting weights protects against metabolic syndrome

October 23 2012

---

People who lift weights are less likely to have metabolic syndrome—a cluster of risk factors linked to heart disease and diabetes, reports a study in the October issue of *The Journal of Strength and Conditioning Research*, official research journal of the National Strength and Conditioning Association (NSCA). The journal is published by Lippincott Williams & Wilkins, a part of Wolters Kluwer Health.

"Lifting weights may play a role in reducing the prevalence and risk of metabolic syndrome among U.S. adults," according to the study by Peter M. Magyari, PhD, HFS, CSCS, and James R. Churilla, PhD, MPH, MS, RCEP, CSCS, FACSM of Brooks College of Health, University of North Florida, Jacksonville.

## About Nine Percent of Americans Lift Weights...

The researchers analyzed data from the 1999-2004 National Health and Nutrition Examination Survey (NHANES), an ongoing, nationally representative study of health [risk factors](#). In the survey, respondents were simply asked whether they lifted weights; the responses were analyzed for association with the presence of metabolic syndrome.

Metabolic syndrome is a cluster of risk factors linked to increased rates risk of cardiovascular disease and [diabetes](#). People with at least three out of five risk factors—large waist circumference (more than 40 inches for men and 35 inches for women), high triglyceride levels, reduced levels

of high-density lipoprotein cholesterol (HDL, or "good" cholesterol), elevated blood pressure, and high glucose levels—are considered to have metabolic syndrome.

Of 5,618 U.S. adults who had fasting blood samples for analysis, 8.8 percent answered yes to the question about lifting weights. Lifting weights was about twice as common in men than women: 11.2 versus 6.3 percent. It was also more common among younger people—lifting weights became less frequent for people aged 50 years and older.

White and black Americans were about equally likely to lift weights, while Mexican Americans were least likely. People at higher socioeconomic levels were also more likely to say they lifted weights.

## **...Reducing the Odds of Metabolic Syndrome by 37 Percent**

This cross-sectional analysis of the 1999-2004 NHANES data found a lower prevalence of metabolic syndrome among people who reported lifting weights: 24.6 percent, compared to 37.3 percent in those who did not lift weights. After adjustment for demographic factors, lifting weights was associated with a 37 percent reduction in the odds of metabolic syndrome.

Several recent studies have evaluated the impact of exercise for prevention and treatment of metabolic syndrome. Resistance exercise, including weight-lifting, may have protective effects. Research has linked greater muscle strength and muscle mass to lower rates of metabolic syndrome. Since lifting weights increases muscle strength and mass, it might also help to decrease the development of metabolic syndrome.

The new study provides population-level data showing that people who lift weights are less likely to have the risk factors that make up metabolic syndrome. This suggests that incorporating weight lifting or other forms of resistance exercise into physical activity programs might be an effective way to reduce the risk of [metabolic syndrome](#), both for individuals and in the population.

"Exercise professionals should strongly encourage the activity of lifting weights among adults of all ages to promote metabolic health," Drs Magyari and Churilla conclude. These efforts should focus on groups with lower rates of weight lifting: women, older adults, Mexican Americans, and lower-income people. The authors acknowledge some significant limitations of their study—such as a lack of detailed information on weight lifting and other types of resistance exercise, including manual labor.

Provided by Wolters Kluwer Health

Citation: Lifting weights protects against metabolic syndrome (2012, October 23) retrieved 2 May 2024 from <https://medicalxpress.com/news/2012-10-weights-metabolic-syndrome.html>

<p>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.</p>
--