Physical activity is 'magic bullet' for pandemics of obesity and cardiovascular disease

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Professors from the Charles E. Schmidt College of Medicine at Florida Atlantic University have evaluated the totality of evidence and conclude that regular physical activity bears the closest resemblance to a "magic bullet" to combat the worldwide epidemic of obesity and cardiovascular disease. Credit: Florida Atlantic University
In an editorial published in the current issue of *Cardiology*, professors from the Charles E. Schmidt College of Medicine at Florida Atlantic University have evaluated the totality of evidence and conclude that regular physical activity bears the closest resemblance to a "magic bullet" to combat the worldwide epidemic of obesity and cardiovascular disease.

The statistics on regular physical activity in the United States are bleak; only about 20 percent of Americans (23 percent of men and 18 percent of women) engage in recommended levels of regular physical activity and about 64 percent never do any physical activity. In Europe, the statistics are not much better with only 33 percent who engage in physical activity with some regularity, while 42 percent never do any physical activity.

"If regular physical activity were a pill, then perhaps more people would take it," said Charles H. Hennekens, M.D., Dr.P.H., co-author of the article titled "Regular Physical Activity: A 'Magic Bullet' for the Pandemics of Obesity and Cardiovascular Disease," and the first Sir Richard Doll Professor and senior academic advisor to the dean in FAU's College of Medicine.

Weight gain as well as being overweight or obese in middle age increase the risk for cardiovascular disease including heart attacks and stroke as well as type 2 diabetes, osteoarthritis and some common and fatal cancers such as colon cancer.

The authors also point out that physical activity confers important beneficial effects beyond body weight and include blood pressure, cholesterol, triglyceride, diabetes, heart attacks, strokes, colon cancer and possibly even breast and prostate cancers as well as arthritis, mood, energy, sleep and sex life.
So with all of these great benefits why don't people exercise more regularly? The authors suggest that perhaps the time and effort needed for regular physical activity, coupled with the limited accurate knowledge about its immediate and long-term benefits, may contribute to largely sedentary lifestyles. This hypothesis is supported by the survey data from Europe where 42 percent give this as the main reason for their sedentary lifestyle.

"There are a lot of misperceptions about the role of regular physical activity, caloric intake and calories burned during exercise," said Steven Lewis, Ph.D., co-author and a professor at FAU's College of Medicine. "And, as a result, calorie restriction dieting has been recommended as more practical for weight control than regular physical activity, and this is a big problem."

Starting in their 30s, Americans and many Europeans tend to gain between 1 and 3 pounds of body weight per year, and by 55, many are between 30 and 50 pounds overweight. This typical weight gain also is marked by an increase in adipose tissue mass and loss of lean body mass that accompanies an inactive lifestyle.

"Most people have great difficulty achieving and maintaining weight loss solely by restricting their calorie intake," said Hennekens. "Therefore, modern inactive lifestyles seem to be at least as important as diet in the etiology of obesity."

The authors note that brisk walking for only 20 minutes a day burns about 700 calories a week, results in a 30 to 40 percent reduced risk of coronary heart disease, and can be performed even by the elderly. They stress that regular physical activity also should include resistance exercise such as lifting weights, which can even be safely performed in the elderly and in patients with heart failure. The maintenance or increase in lean body mass derived from lifting weights promotes an
increase in the calories people burn at rest which adds a significant additional contribution to control of body weight.

"The general health benefits of resistance training for middle-aged and older adults are many, including the prevention or limitation of age-related sarcopenia, improved maintenance of muscle mass strength, and a decreased risk of osteoporosis-related bone fractures, falls, physical disability, and mortality," said Lewis.

Lack of physical activity accounts for 22 percent of coronary heart disease, 22 percent of colon cancer, 18 percent of osteoporotic fractures, 12 percent of diabetes and hypertension, and five percent of breast cancer. Furthermore, physical inactivity accounts for approximately 2.4 percent of U.S. healthcare expenditures or approximately $24 billion a year.

"Clinicians and their patients should remain cognizant of the crucial role of regular physical activity in improving the quality and quantity of life," said Hennekens. "There also is a need for increased awareness of the importance of resistance training as a valuable adjunct to regular aerobic activity such as brisk walking. And, finally, there is a dire need to educate patients about the importance of regular physical activity for weight control."

Finally, the authors caution that cardiovascular disease is now the leading killer worldwide and a chief contributor in developing countries, increasing obesity and decreasing levels of physical activity.

Hennekens and Lewis both practice what they preach. Lewis is an exercise physiologist and Hennekens remains an avid tennis player having been the only graduate of Queens College ever inducted into the academic and athletic halls of fame. He also is formerly the No. 4 ranked squash player in the U.S. in the 40 and over division, and was
appointed by FAU President John Kelly to serve on the University's Intercollegiate Athletics Committee.

Provided by Florida Atlantic University


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