

Health & Nutrition Letter

YOUR GUIDE TO LIVING
HEALTHIER LONGER

NEWSBITES

Extra Pounds But Not Enough Nutrients

Overweight and obese Americans are more likely to fall short on important vitamins and minerals, according to a new analysis of data from national nutrition surveys. The findings, published in the *Journal of the American College of Nutrition*, support the theory that the diets packing on pounds nonetheless don't supply adequate nutrients. Normal-weight individuals had the highest intake of most of the nutrients studied, with overweight people next and those classified as obese at the low end. Obese adults' intakes of vitamins A, C, D and E, dietary fiber, calcium, magnesium and potassium ranged from 5% to 12% lower than those of normal-weight adults.

Surprisingly, the study also found that the normal-weight group actually consumed the most daily calories—2,216 on average, compared to 2,002 for the overweight group and 2,154

NEWSBITES continued on page 2

INSIDE

- 2 **NEWSBITES:** Caffeine safety, sugar, pomegranate claims and more.
- 3 Staying highly fit slows aging.
- 4 **SPECIAL REPORT:** New reasons to eat whole grains and fiber.
- 6 Blueberries for BP and brain.
- 7 Fast food: It pays to compare.
- 8 **ASK TUFTS EXPERTS:** Calcium with magnesium, mold and more.

Activity Benefits Go Beyond Weight Loss

Impact of physical activity level is twice that of obesity.

If you're looking for motivation to get up off the couch, the results of a large new European study may be just what you need to lace up those walking shoes. Even a moderate amount of exercise—the equivalent of a daily brisk 20-minute walk—was associated with significant reductions in mortality risk. Physical activity contributed to longevity independently of weight loss, and the biggest potential benefits were seen simply by going from completely sedentary to “moderately inactive.”

“Along with good, wholesome nutrition, there is no more important thing you can do for your health than move your body,” says Tufts professor Miriam E. Nelson, PhD, author of the “Strong Women” book series. She advises: “Get your heart rate up, use your muscles and expend more energy. A regular exercise routine protects your heart, increases bone density, ups your energy level, retards the muscle atrophy and creeping frailty that occur as we age, and is crucial for weight control.”

SEDENTARY VS. MODERATELY INACTIVE:

Physical activity has consistently been asso-



Even a moderate amount of exercise—the equivalent of a daily brisk 20-minute walk—was associated with significant reductions in mortality risk. (Image © Thinkstock)

TAKE CHARGE!

Engaging in enough daily physical activity to burn about **100 calories** can be the difference between a high-risk sedentary lifestyle and being “moderately inactive.” Of course, you'll want to aim for a greater level of activity over time, but just getting going can pay big dividends. Here are examples of activities that burn about 100 calories, depending on your weight, in about **20 minutes**:

- ♦ Walking briskly
- ♦ Gardening
- ♦ Lawn mowing with a power mower
- ♦ Playing tennis doubles
- ♦ Raking leaves
- ♦ Roller-skating
- ♦ Shooting baskets
- ♦ Washing and waxing a large car

Can't spare 20 minutes? These more strenuous activities burn about 100 calories in **15 minutes**:

- ♦ Dancing fast
- ♦ Hiking
- ♦ Ice-skating
- ♦ Lifting weights
- ♦ Using a push mower
- ♦ Splitting wood
- ♦ Treading water
- ♦ Walking uphill
- ♦ Using a stair-climber

ciated with protection from chronic disease and reduced mortality risk. But it hasn't been clear whether these benefits are entirely because exercise contributes to weight loss, or whether physical activity exerts effects independent of weight and waistline.

To help answer this question, researchers led by Ulf Ekelund, PhD, of the University of Cambridge, looked at data from the European Prospective Investigation into Cancer and Nutrition (EPIC) study. This study measured body mass index (BMI) and waist circumference among 334,161 men and women, who were then followed for an average of 12.4 years. Participants also reported their occupational and recreational levels of physical activity; 22.7% were classified as “inactive,” combining a sedentary job with no leisure-time activity.

Over the follow-up period, 21,438

ACTIVITY continued on page 3

participants died. According to findings published in the *American Journal of Clinical Nutrition*, those in the “moderately inactive” group were at up to 30% lower mortality risk than those who were completely inactive. Adding enough daily activity to burn 90-110 calories—such as a brisk 20-minute walk—would move an individual from the high-risk inactive category to the “moderately inactive” group, researchers noted.

“This is a simple message,” Ekelund said. “Just a small amount of physical activity each day could have substantial health benefits for people who are physically inactive.”

WEIGHT AND WAIST SIZE: Across all BMI levels, moderately inactive participants saw a 20-30% lower mortality risk compared to their inactive peers. Greater activity further boosted this difference in

STEPS TO BE LESS SEDENTARY

Before beginning a formal exercise program, advises Tufts’ Miriam E. Nelson, spend two weeks finding ways in your routine to decrease a sedentary lifestyle. “For example, I walk to work, and I don’t waste time driving around the mall looking for a spot close to the entrance. I also walk or ride my bicycle when I can, and do not shy away from some of the heavier outdoor work around the house, including raking leaves, shoveling snow

and stacking wood.”

Obviously, she cautions, if you’ve been sedentary for most of your adult life, you should start small and safe. “But just about everyone can think of ways to incorporate a little more physical activity into their lives here and there, even if it’s as simple as taking something upstairs every time you think of it rather than building a pile at the bottom of the stairs to take up in one trip at the end of the day.”

normal-weight and overweight participants; active normal-weight people, for example, saw a 41% lower mortality risk compared to inactive normal-weight individuals. Among obese participants (BMI greater than 30), no additional risk reduction was seen beyond that for the moderately inactive group. Similar results were observed when participants

were grouped by waist circumference.

Overall, researchers estimated that the mortality effects of physical inactivity were more than twice those of obesity and similar to that of large waist circumference.

“Helping people to lose weight can be a real challenge,” noted researcher Nick Wareham, PhD, of the University of Cambridge, “and while we should continue to aim at reducing population levels of obesity, public-health interventions that encourage people to make small but achievable changes in physical activity can have significant health benefits and may be easier to achieve and maintain.”

“Although we found that just 20 minutes would make a difference,” Ekelund added, “we should really be looking to do more than this. Physical activity has many proven health benefits and should be an important part of our daily life.”

STAYING HIGHLY FIT SLOWS SIGNS OF AGING

Older people who are highly fit, such as recreational cyclists, are physiologically more similar to young people than to more sedentary seniors. That’s the conclusion of a new British study that sought to explore the effect of physical activity on key indicators of aging. As one scientist put it, “Being physically active makes your body function on the inside more like a young person’s.”

Published in *The Journal of Physiology*, the study recruited 85 men and 41 women, ages 55 to 79, who were serious recreational cyclists. Participants were put through a battery of physical and cognitive tests, with results compared against standard benchmarks of normal aging. On most of the tests, the highly fit cyclists performed more like young adults. Even participants in their 70s scored decades “younger” in metabolic health, balance, memory and reflexes.

Roger A. Fielding, PhD, director of Tufts’ HNRCA Nutrition, Exercise, Physiology and Sarcopenia Laboratory, comments, “We have known for a long time that regular exercise can reverse some of the

age-related declines in aerobic fitness and muscle strength, and preserve physical functioning. This study reinforces this concept and highlights that lifelong regular exercise can sustain these improvements.”

Typical of the cyclists’ youthful performance were their scores on a standard test called Timed Up and Go. The test times how long it takes someone to stand up from a chair without using his arms, briskly walk 10 feet, turn, walk back and sit down again. Older adults considered on the edge of frailty might take 9 or 10 seconds to perform the test, while a typical score for a healthy senior is 7 seconds. But even the oldest cyclists in the study whipped through the test in an average of 5 seconds—“well within the norm reported for healthy young adults.”

Fitness couldn’t slow the aging clock for every physiological measure, however. Compared to cyclists in their 50s and early 60s, participants in their 70s had lower overall aerobic capacity and less muscle mass and muscular power. But those scores were still better than what would be viewed as average for their age.



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