

10,000 steps to better health

Electronic pedometers can help motivate people to move, health experts say

By Carol Krucoff

One of today's hottest exercise devices fits in your pocket, costs about \$25 and is so simple a child can use it. Electronic pedometers have become increasingly popular "movement motivators" in health promotion programs, including weight loss clinics, corporate fitness centers and physical education classes. The palm-sized gadgets clip onto your waistband and record the number of steps you take, with more sophisticated models also calculating distance covered and calories burned. The goal for good health, many experts say, is to accumulate 10,000 steps per day.

"People love it because they get immediate feedback on how active, or inactive, they are," says David Bassett, an associate professor of exercise science at the University of Tennessee, Knoxville. Unlike old-style mechanical pedometers, the newer electronic versions are extremely accurate, says Bassett, whose study testing five popular models appeared in the journal *"Medicine and Science in Sports and Exercise."*

The Japanese have used electronic pedometers for more than a decade to help counteract sedentary lifestyles, Bassett notes. Nicknamed "manpo-kei," which means "10,000 steps meter" in Japanese, the devices were brought to the United States in the mid-1990s by exercise scientists who used them to determine daily activity levels in research studies.

"Most researchers had been using questionnaires to record low to moderate activity levels," he notes. "But their accuracy was questionable because people often can't remember how many flights of stairs they climbed or how often they got up and walked." In contrast, electronic pedometers are an extremely accurate means of recording daily life activity. Study participants found the devices so helpful that, over the last several years, pedometers have become an increasingly popular tool for helping motivate people to become more active.

Most sedentary people take only about 3,000 steps per day, says Bassett, and "they must make a concerted effort to get 10,000." These steps can be accumulated in formal exercise programs or through lifestyle activities such as climbing stairs or walking to do errands.

Lifestyle activities can provide health benefits similar to a traditional gym-based workout, according to a study performed at the Cooper Institute for Aerobics Research in Dallas. The study, called "Project Active," used the simplest kind of pedometer — a step counter — to record and motivate participants in the "lifestyle activity" group, says project director Andrea Dunn.

"People put them on first thing in the morning and take them off right before bed," Dunn says. "If it's mid-day and you only have 3,000 steps, you know you've got to get moving to reach your goal."

While 10,000 steps per day will meet most recommendations for adequate physical activity, Dunn says, it may be too high a number for some people and too low for others. "If you're only getting 2,000 steps a day it may be unrealistic to go immediately to 10,000," she says. "People who have a weight problem may need to target closer to 15,000 to 18,000 steps per day to lose or maintain weight loss."

"There's no magic number; it's all relative," concurs Abby King, associate professor of health research and policy at the Stanford University School of Medicine in Palo Alto, Calif. "If

a frail older person who's been getting 2,000 steps goes up to 4,000 steps, that's a real success. The best thing for people to do is establish a baseline, then try to get more steps than they've been getting."

Most people think they're more active than they actually are, notes King, who says pedometers help people recognize and change sedentary habits. "At the end of the day people are very tired, and they think it's because they're active," she says. "But there's a tremendous amount of mental and emotional fatigue that's not related to physical activity. Many people are surprised to see that they only accumulate 3,000 steps a day."

When people become aware how inactive they are, she says, "They'll start to think about ways to sneak in more steps, like taking a walk break instead of a coffee break or having a meeting while walking instead of sitting in the office."

Pedometers help people become accountable for their behavior, says Alice Lockridge, an exercise physiologist who runs a personal training studio near Seattle. "I've had clients bring them back to me and say, 'It's not working, I only got 2,000 steps,'" she recalls. "When I test it and discover that it works fine, they're incredulous."

The devices can be particularly motivating for children, says Teresa Vollenweider, whose Kansas City, Mo., fitness equipment company New Life Styles sells "school packs" that include 15 pedometers plus teaching materials. "The kids can get very competitive to see who gets the most steps," she says. "I've had physical education teachers tell me that kids who were wearing them during a bowling unit didn't just stand in line, they marched in place to get more steps."

But pedometers do have limits. They don't record intensity, so there's no way to tell whether steps are taken running or strolling. And they don't work with non-weight-bearing activities like cycling, swimming or rowing. And they only work properly when worn correctly, on a waistband directly above the knee. People with big stomachs may need to wear them on the side, which may reduce accuracy. Women wearing dresses without waistbands may need to improvise — such as by clipping them on pantyhose, which makes them hard to read.

"You can also estimate steps by knowing that 2,000 steps equals one mile," notes the guidebook to the 10,000 Steps program just launched by HealthPartners, a Minnesota managed care company. The program provides people with pedometers and motivational support, such as a log to record progress and incentives for participation.

"Research shows that for an average person, walking an additional 5,000 to 7,000 steps a day has significant health benefits, cutting the risk for diseases such as cancer, diabetes, osteoporosis and heart disease," notes Julie Dappen, director of corporate communications for HealthPartners. "We're trying to make it practical for people to take the steps they need for better health."

Resources:

Step counters cost about \$20, with more sophisticated pedometers running up to \$30. Available at some sporting goods stores, they may be purchased from:

- New Life Styles. Call 1-888-SIT-LESS.
- ACCUSPLIT. Call 1-800-935-1996.
- HealthPartners' "10,000 Steps Program." Call 800-311-1052.

© Carol Krucoff, 1999. All rights reserved.