Pedometers play up every step you take

Dorene Internicola, Reuters

(Reuters) - Pedometers have ticked off many miles since Leonardo da Vinci sketched his version, essentially a pendulum for walkers, in the 15th century.

While step counting will never be a magic fitness pill, experts say this most pedestrian of gadgets can put extra spring in an ambulatory routine.

"Just as a watch can't make a person be on time, a pedometer can't make a person active," said Dr. Barbara Bushman, an exercise specialist and personal trainer with the American College of Sports Medicine (ACSM). "But it's a good tool for promoting physical activity."

Bushman said research has shown that in various populations, wearing a pedometer helps with weight loss, as well as encouraging focus on physical activity.

A summary of 26 different studies showed that pedometer users walked at least 2,000 more steps each day than nonusers, according to the Harvard Health Letter, produced by experts at Harvard Medical School. Also, using a pedometer helped them increase overall physical activity levels by 27 percent.

For most healthy adults, 10,000 steps per day is a reasonable goal, according to ACSM.

Bushman recommends pedometers as an adjunct to activity and notes that old-fashioned pedometers can be an inexact measure of exercise volume. Position also matters.

"Tilting, angling, placing it off the body or on a loose waistband can affect accuracy," she said, noting the devices don't pick up non-ambulatory activities, such as stationary cycling or rowing.

She did a study with third-graders who wore the pedometers to encourage them to be more active during recess.

"But they figured out if they just jiggled in the seat they could trick the counter," she said. "It did make them fidget more."

INCREASING FITNESS AWARENESS

To test the accuracy of a pedometer, Bushman suggests, count out 20 paces. If the counter reads within 18 to 22, it's considered a reasonably accurate step counter.

Gregory Chertok, a sport psychology counselor and fitness trainer at the Physical Medicine and Rehabilitation Center in Englewood, New Jersey, said studies show

that just wearing a pedometer can increase fitness awareness.

"A pedometer is almost like a workout buddy, an ever-present truth teller," he said. "It provides constant, immediate feedback, and so acts as a behavior modification tool."

There is also the power of numbers.

"Most goals people set are measurable, numeric, so just having the number can encourage you to set your own goal," he said.

Chertok added that pedometers also help people realize that everyday activities, such as walking up stairs or through supermarket aisles, count toward that goal.

MONITORING PROGRESS

"Accountability is a big issue," Chertok explained, "accountability and social support."

Just as working out in groups increases exercise adherence, he suggests, a pedometer can be effective because people know they are being monitored, even if you're monitoring yourself.

To build a better pedometer, companies are moving from the spring-load, or old-fashioned, to microchip.

Garmin Ltd's 201 model is a wrist unit that uses GPS satellites to trace your outdoor workout. Besides showing speed, distance, pace, time and laps, it can even point you back to your starting place.

Using MEMS (microelectromechanical systems) technology, the technology in very small devices, Striiv is among the companies making pedometers that are smarter and contain no moving parts.

"It's the next generation," said Dave Wang, chief executive of the Redwood City, California-based company.

The new technology, he maintains, improves stepping accuracy to within one percent of every 100 steps on normal terrain.

Last month the company rolled out a free iPhone app that can be used alone or in conjunction with its Play Smart Pedometer that enables users to compete in various games [1] and challenges via Facebook [2] and email.

The new generation of pedometers can track running, and even climbing, but calories remain the final frontier.

"Calories are a little hard," Wang admits, although his pedometers do take a stab at it.

"We look at your height, your weight, your gender, your age, your cadence, your altimeter increase if you're walking up a hill," he said. "But at the end of the day ... it's a guess."

(Editing by Patricia Reaney and Jeffrey Benkoe)

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