Updating the Message to Get Americans Moving

Rod Dishman, director of the exercise psychology laboratory at the University of Georgia, is annoyed when students enroll in one of the fitness classes offered at his university. Because it’s a class in walking.

“It is a sin for a healthy, capable young adult to enroll in a walking class,” he said. “It is obscene. What they are getting credit for is avoiding making any effort.”

And therein lies a problem, Dr. Dishman and other researchers say. The public health message about exercise is that any amount is good and that walking is just fine. Everyone has been told, repeatedly, that regular exercise improves health and makes people feel better, happier, more energetic. Nearly all Americans say they have heard those messages. They know that exercise is good for them and that they should do it.

Yet they do not.

About 40 percent of Americans report that they never exercise, a figure that has remained steady for decades. They will not even do the easy stuff. In studies of moderate exercise to help prevent diabetes, for example, investigators had to go to great lengths just to keep subjects in a walking program.

Now, with more recent studies using accelerometers that measure actual movement rather than relying on self-reports, the data are even more dismal. Only 3.5 percent of Americans between the ages of 18 and 59 do the minimum amount of physical activity recommended by the Department of Health and Human Services: 150 minutes a week of moderate activity. Among those over age 60, the percentage is even lower: 2.5 percent. “It is stunning,” said Panteleimon Ekkekakis, an exercise researcher at Iowa State University.

If Americans know exercise is so good for them, why don’t they take the message to heart as they did the exhortations against smoking? And if exercise makes people feel so good, why don’t they just do it?

Maybe, some researchers say, the problem is the message. It obviously has not had much of an effect. The idea now is to make use of tools that psychologists have developed to assess people’s moods during exercise, asking how good or bad it feels as the intensity varies.

In a series of studies, Dr. Ekkekakis and his colleagues found that as exercise intensity increased to the point where a person was on the verge of breathing so hard that it was difficult to talk — the so-called ventilatory threshold — people had different reactions. Some say they felt more and more pleasure, while others felt less. Beyond the ventilatory threshold, though, most felt bad. It’s complicated, though. A hard workout for one person can feel ridiculously easy for another.

At one extreme are acutely sedentary people. “As soon as they get up and take a few steps, they are above their ventilatory threshold,” Dr. Ekkekakis said.

At the other extreme are athletes who cannot reach their ventilatory thresholds until their hearts are beating at nearly the maximum rate.

Even within fitness levels, there are individual variations. Some people actually feel their best when they surpass their ventilatory threshold.

It is not at all clear what is going on in the brain — why at some level of intensity a workout starts to feel good. Nor, Dr. Dishman said, is it known why a long endurance workout can feel good in a different way than a short workout with intense bursts of effort.

But Dr. Ekkekakis has discovered a few clues. He borrowed from Daniel Kahneman, the Princeton psychologist whose research has found that people remember two parts of an experience: the peak, when the feeling was most intense, and the end.

Dr. Ekkekakis and his colleagues recruited volunteers for a study in which subjects exercised for 20 minutes at a level they reported was unpleasant. In one session, the subjects had a five-minute cooling down period afterward, which immediately changed their moods because it felt pleasant. In the other session, the subjects stopped exercising, without a cool-down.

A week later, the researchers asked their subjects, “Which of the two workouts would you repeat?”

“At a ratio of two to one, they chose the one with the pleasant end,” Dr. Ekkekakis said. “But they cannot tell you why.”

There may be a public health lesson there, researchers say. Simply giving people an exercise prescription, like walking for 20 minutes a day, five days a week, is clearly not working. Nor are programs that claim very intense, very short bouts of exercise are all that is needed.

To encourage exercise, perhaps people should be told to find an exercise, and an intensity level, that makes them feel good, Dr. Ekkekakis said.

“People like to do things that make them feel better, and they avoid things that make them feel worse,” he added. “The idea is for them to have the motivation to exercise again tomorrow.”