Messier and his colleagues have conducted two large, long-term studies in overweight or obese sedentary men and women aged 55 and older with osteoarthritis of the knees.

In the Fitness Arthritis and Seniors Trial (FAST), 293 people were randomly assigned to walk for 40 minutes three times a week or to participate in an exercise-free program with information about controlling arthritis.\(^8\)

After 18 months, the walkers reported less pain and less difficulty with the activities of daily living than the non-exercisers. They also walked 53 yards farther during a six-minute test, could get out of a car much faster, and had stronger knees.

The Intensive Diet and Exercise for Arthritis (IDEA) study tested whether diet plus exercise was better than either one alone. Roughly 400 participants were randomly assigned to do 30 minutes of walking and 20 minutes of strength training three times a week for 18 months, to cut 800 to 1,000 calories a day, or to do both.\(^9\)

At the end of the study, the exercise-plus-diet group had lost an average of 23 pounds. Nearly 40 percent of them—but just 20 percent of the diet-only group and 20 percent of the exercise-only group—reported little or no pain in their knees.

And the people in the exercise-plus-diet group, who averaged around 70 years of age, were walking as fast as healthy 40-to-60-year-olds, says Messier. “Increasing your walking speed when you’re older is a big deal,” he notes, “because it helps maintain your mobility.”

4 Improve your mood.

“Walking for exercise can help people who have been diagnosed with mild or moderate depression as much as drugs or psychotherapy sessions,” says exercise psychologist Panteleimon Ekkekakis of Iowa State University.

In one study, researchers randomly assigned 80 overweight, sedentary people with mild to moderate depression to do aerobic exercise on a treadmill or stationary bicycle or to do stretching exercises.\(^10\)

After 12 weeks, those who did the equivalent of brisk walking for roughly 180 minutes a week reported a greater reduction in symptoms than those who exercised for around 80 minutes a week or did stretching. And nearly half of those who spent the most time each week doing aerobic exercise were no longer depressed.

Exercise appears to work in a way similar to antidepressant medications, notes Ekkekakis. The drugs correct an imbalance in levels of serotonin, a chemical messenger that helps keep mood balanced. “In animals where we can observe what’s happening in their brains,” says Ekkekakis, “we see significant increases in serotonin levels with exercise.”

And exercise is the surest way to produce brain-derived neurotropic factor, or BDNF, “which we presume to be therapeutic for depression,” says Ekkekakis.

Like psychotherapy, exercise also helps patients feel that they have regained some control over their lives. “Individuals who suffer depression and who exercise report feeling greater self-efficacy and empowerment,” says Ekkekakis.

Since 2010, American Psychiatric Association guidelines have recognized that exercise may be valuable for treating mild depression, notes Ekkekakis. “But exercise is largely ignored by psychiatrists and primary care physicians in the United States.”