Ten Minutes a Day Walking on Treadmill Eases Mood, Pain

BY FRAN LOWRY
Orlando Bureau

ORLANDO — A physical conditioning program that consisted of just 10 minutes a day of walking on a treadmill at a moderate pace for 3 weeks significantly improved measures of pain perception, aerobic capacity, depression, and anxiety among patients with chronic pain, according to a study presented at the annual meeting of the American Academy of Pain Medicine.

"A frequent comorbid condition of chronic pain is profound physical deconditioning that results from inactivity. People are in too much pain to exercise or be even moderately physically active," Amy M. Burleson, Psy.D., of the Cleveland Clinic, said in an interview.

"This inactivity often leads to depression and other mood disorders, and we know that these can exacerbate pain, so we were very pleased to see how effective this very modest amount of exercise was in improving not only the cardiovascular fitness of our study sample, but also their mood," she added.

While it’s long-hailed, aerobic exercise, such as walking, is often recommended as part of a pain management plan, few studies have rigorously assessed its impacts.

After rehabilitation programs were completed, improvements of pain, depression, and anxiety have been well documented. However, the immediate effects of brief exercise on these factors were unknown.

The investigation’s 28 patients were admitted to the Cleveland Clinic’s chronic pain rehabilitation program for a variety of chronic pain conditions, including low back pain, neuropathy, fibromyalgia, and migraines. They also had a psychiatric diagnosis, which included depression, anxiety, or a combination of both. Their mean age was 43 years and 53% were female, Burleson, who presented the study results at the annual meeting of the American Academy of Pain Medicine.

"The Cleveland Clinic’s chronic pain program is an interdisciplinary program incorporating psychiatry, nursing, psychology, physical therapy, and addiction therapy. This is very important because treatment of chronic pain requires the expertise of multiple specialties," Burleson said.

The exercise component consisted of a daily 10-minute walk on a treadmill. Patients started with the treadmill speed set at 1.0 mile per hour. The pace was increased by 0.5 mile per hour every 2 minutes, so that patients reached a final speed of 3.0 miles per hour, a pace that most people could manage, Dr. Burleson said.

After the 3-week program, the brief duration of daily exercise was associated with significant improvements in exercise-induced cardiac acceleration, as measured by a change in the median heart rate from 31 beats per minute to 22 beats per minute.

Patients also reported significantly less depression, anxiety, and perceived exertion. Acute antidepressant and anxiety effects were seen after 10 minutes of walking, as depression dropped from 6.36 to 4.86 and anxiety dropped from 5.86 to 4.07 on a 10-point Likert scale. These improvements continued to be seen at the 3-week mark.

Patients reported that it took less effort to do their treadmill walks after the 3-week program. The median exertion score on the Likert scale went from 4.0 to 3.5.

Patients’ perception of pain also diminished, with Likert scale scores falling from 7.32 at baseline to 2.75 at 3 weeks.

"This research suggests that relatively modest exercise leads to improved mood and physical capacity, which has further implications for mortality risk," she commented. "Further, it suggests that brief exercise is a safe, cost-free, nonpharmacologic strategy for immediately reducing depression and anxiety. So if we can get our chronic pain patients moving, even for short periods, it appears we can really help them feel better, both physically and mentally."