

## Walking is great for your health. Walking backward? Even better.

This overlooked movement can strengthen muscles, improve balance, and even boost memory. The downside is not seeing where you're going.

Emerging research suggests that retro walking, or walking backward, may improve joint health, boost cognitive function, and burn more calories than walking forward.

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Walking is one of the simplest and most accessible ways to stay fit, but taking a few steps in reverse could unlock even greater benefits. This seemingly unconventional movement, known as retro walking, is gaining attention for improving balance, strengthening underused muscles, and even sharpening cognitive function.

The practice isn't new—records suggest that backward walking has been part of traditional exercise routines in [China](#) for centuries. Athletes and coaches later embraced it to enhance sports performance. Now, researchers are uncovering just how powerful this small change in movement can be.

### Benefits of walking backward

Unlike forward walking, which primarily engages the ankles, walking backward shifts the workload to the hips and knees. This subtle change in movement activates different muscle groups, offering unique benefits for strength and mobility.

"I honestly think the biggest benefits to walking backward on the treadmill is the ability to change the mechanical load on the body and to challenge the brain and balance system with a novel task," says Nicole Haas, an orthopedic clinical specialist in Boulder, Colorado. "When you walk backward on the treadmill, your [overall gait pattern](#) is different, so you recruit and load muscles, tendons, fascia, and joints differently."

Janet Dufek, a kinesiology and nutrition sciences professor at the University of Nevada, Las Vegas, has researched backward locomotion extensively for over 20 years. She [found](#) that retro walking increases low back and [hamstring](#) flexibility, reduces low back pain, and improves balance and stability—key reasons it's often incorporated into physical therapy and rehabilitation programs.

But the benefits go beyond flexibility. According to the American College of Sports Medicine, retro walking burns [40 percent more calories](#) per minute than brisk forward walking. A

2014 [study](#) published in the *International Journal of Scientific and Research Publications* found that pre-obese women between the ages of 20 and 40 who followed a six-week backward walking program lost body fat and improved their overall fitness.

"To keep it simple...if you want a killer glute and hamstring workout that has other benefits, try using a sled with a belt attached, and simply walk backwards for 10-15 yards and you won't be disappointed," says Daine McKibben Rice, director of the Validus Sports Injury clinic in London.

## **A workout for the brain too**

Emerging research suggests that walking backward does more than strengthen muscles—it also sharpens cognitive function. A 2019 [study](#) found that participants who walked backward for 10 to 15 minutes three to four times a week showed greater improvements in balance and stability than those who stepped forward or remained inactive.

*([No time to exercise? Just 5 minutes still has a big impact.](#))*

“Walking backward improves cognitive functioning by improving spatial awareness and coordination. Because it’s an activity that necessitates greater attention and focus, it can also enhance executive functioning,” says Ashwini Nadkarni, an assistant professor of psychiatry at Harvard Medical School. [Studies](#) have even linked the practice to faster reaction times and improved short-term memory.

Retro walking may also be valuable for those with joint pain or arthritis. Unlike forward walking, it places less stress on the kneecaps while strengthening the quadriceps, which helps support knee stability. A study [published](#) in the *North American Journal of Medical Sciences* found that incorporating backward walking into physical therapy routines significantly reduced disability in patients with knee osteoarthritis.

“The benefits of backward walking like any exercise intervention depends on each person’s fitness level,” says Dufek. “You can also vary the speed and incline to make it more or less intense,”

## **Is walking backward really better?**

Not everyone is fully convinced about the benefits of retro walking, though.

“The evidence for backward walking training mostly comes from physical therapy, where very small studies show that this type of training may help people with knee issues when added to a regular physical therapy program,” says Jonathan Jarry, a science communicator in McGill University’s office for science and society. “For the rest of us, we are left with an exotic-looking exercise that is unlikely to be better than regular workouts, and that comes with the added hazard of tripping over ourselves.”

Haas adds, “The research that does exist for walking backwards on the treadmill—to lessen knee pain, or back pain, or boost fitness—all have small study groups and are targeting very specific diagnoses, so that research is difficult to apply straight across the board for everyone who walks backwards.”

Still, safety is key for those willing to try it. “Just be careful in your practice. Use of a treadmill can mitigate these risks,” says Dufek. “Ensure that your walking space is safe without trip hazards. You can always use a walking partner to be your ‘eye’ when you cannot see.”