

# Pros and Cons of Wearing a Weighted Vest During Walks

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## STORY AT-A-GLANCE

- › Wearing a weighted vest while walking can lead to significant gains in physical performance and health
- › It engages more muscles, helping to build strength and endurance, and may help boost metabolism, maintain strong bones and make everyday tasks easier
- › In a study of women between the ages of 65 and 74 who took part in an exercise program while wearing a weight vest, lower limb muscle power improved by 10% to 11%
- › Wearing a weighted vest can pose a risk of injury, particularly if the weight is too heavy, it's not balanced properly or you have a pre-existing condition like arthritis
- › To minimize risks, start with a light weight and gradually increase the load as your body adapts; also be sure the vest fits properly and the weight is distributed evenly

Walking is an excellent form of exercise that cannot be overdone, unlike more vigorous forms of physical activity like high-intensity interval training and strength training. Not only is it low impact but it can be done virtually anywhere and requires no special equipment.

Further, walking is a natural human activity, like breathing, sleeping and eating,<sup>1</sup> which gives a clue to its usefulness for fitness. Walking is appropriate for beginners to seasoned athletes, and its versatility allows you to adjust the intensity and duration to match your fitness levels and meet your exercise goals.

While increasing your speed, walking on an incline or walking longer distances are all useful methods to vary your walking workout, another way to increase the intensity of walking is wearing a weighted vest, which offers both benefits and a few risks to be aware of.

## **Benefits of Wearing a Weighted Vest on Your Next Walk**

The extra effort required to carry a weighted vest will have your heart pounding much faster than an ordinary walk and can lead to significant gains in physical performance and health. Adding extra weight requires more energy expenditure, leading to a higher calorie burn and improved cardiovascular health compared to walking without additional weight.

It also engages more muscles, helping to build strength and endurance. In a study of 11 women between the ages of 65 and 74 who took part in an exercise program while wearing a weight vest, lower limb muscle power improved by 10% to 11%, while stair climb time improved by 9%. Stair climbing power also improved by 10%.

"The magnitude of observed training improvements suggest that weighted step training has the potential to prolong independence and prevent age-related health conditions such as sarcopenia," the team explained in the *Journal of Clinical Medicine*.<sup>2</sup>

Additionally, wearing a weighted vest may help boost metabolism, maintain strong bones and make everyday tasks easier. The extra load from a weighted vest may help stimulate bone growth<sup>3</sup> and maintain bone density, reducing the risk of osteoporosis. Another study examined how wearing a weighted vest affects oxygen use, exercise intensity and vertical ground reaction forces and loading rate of the body while walking on a treadmill.<sup>4</sup>

Ten young adults walked on a treadmill at different speeds while wearing vests with weights of 0%, 10%, 15% or 20% of their body mass index. The researchers measured how much oxygen they used, how hard they were working and the forces on their feet and legs.

It turned out that wearing a weighted vest increased oxygen use and exercise intensity, especially at higher speeds. The force on the participants' legs and the rate of impact were also higher when wearing heavier vests. The researchers concluded that wearing a weighted vest while walking increases the energy required, makes the exercise more intense and puts more load on your bones and muscles.

Another study of 20 individuals revealed that wearing a weighted vest – with a weight of 20 pounds for men and 14 pounds for women – increased physical effort while walking on a treadmill at a 10% incline.<sup>5</sup> However, it did not change how the subjects walked or ran and did not increase the risk of lower-limb injuries.

## **Are Humans Made to Carry a Load?**

While many people turn to running for exercise, Michael Easter, professor at the University of Nevada, Las Vegas, argues that we're not born to run, we're born to carry.

"As we evolved, running was relatively rare. It was reserved mostly for hunts. Modern day tribes like the Tarahumara, for example, never run for the fun of it. Running is reserved for rare hunts and religious ceremonies ... Carrying, on the other hand, is something us humans did all the time as we evolved. So all the evidence suggests that we were more so 'born to carry,'" he writes.<sup>6</sup>

Humans carried loads of 10 to 20 pounds regularly as hunter-gatherers. After hunting, humans would also carry larger loads of 80 pounds or more. The agricultural revolution changed humans' need to carry, and our physical fitness may still be suffering because of it. According to Easter:<sup>7</sup>

*"New technology killed our need to run or carry. We went from mules and oxen carrying our stuff to, now, shopping carts, wheeled suitcases, and Amazon Prime dropping anything and everything off at our doors. But unlike running, most of us never reengineered carrying back into our days – except for ruckers."*

The term **rucking** comes from rucksack marches, or rucks, which are strenuous exercises commonly used during military bootcamp training. However, rucking, which involves walking or hiking with a weighted backpack, has also gained traction as a fitness activity for civilians looking to improve their endurance and build muscle.

Similar to wearing a weighted vest, rucking combines the benefits of cardiovascular exercise with strength training, as the added weight increases the physical demands on your body. You'll also burn more calories — about 30% to 45% more — walking with a weighted pack than you would without one.<sup>8</sup> Along with working all the typical muscles you use while walking, rucking engages your legs, back, shoulders and core muscles throughout the activity.<sup>9</sup>

In one study of walking while carrying a load, the weighted walking led to significant improvements in psychophysical responses, including increases in squat jump maximal force, push-ups, sit-ups and estimated maximal oxygen uptake, after 10 weeks.<sup>10</sup>

## **What Are the Risks of Walking With a Weighted Vest?**

Wearing a weighted vest can pose a risk of injury, particularly if the weight is too heavy or you have a pre-existing condition like arthritis. The added weight can increase the load on your joints, particularly in your knees, hips and ankles, which could lead to joint pain or make existing joint issues worse.

Improper use of a weighted vest can also affect your posture. If the weight is not evenly distributed or if you compensate by altering your gait, it can lead to imbalances and musculoskeletal issues, such as back pain or shoulder strain. If you're walking in hot temperatures, also keep in mind that the vest may tire you out faster and make it harder to cool down.<sup>11</sup>

To minimize these risks, it's important to start with a light weight and gradually increase the load as your body adapts. Additionally, ensuring proper fit and distribution of the weight, maintaining good posture and allowing for adequate recovery time can help you

avoid any potential issues. The vest should feel comfortable, be evenly weighted and should not restrict your movement or breathing.

An ill-fitting vest can cause discomfort and increase your risk of injury. As your strength and endurance improve, you can work your way up to a specially designed rucksack, with wide, padded shoulder straps and a waist strap to help keep weight distribution even. Add only five or 10 pounds of weight at a time, eventually working up to carrying one-third of your body weight.<sup>12</sup>

## Why Walking Is Good for You

If you're new to exercise or haven't been active for a while, it may be **best to start walking** without a weighted vest until you build a solid fitness base. Even simple walking can lead to impressive fitness gains, without the risk of overdoing it.

It's important to understand that **too much vigorous exercise backfires**. A landmark study that radically changed my views on exercise was published by Dr. James O'Keefe, a cardiologist with the Mid-America Heart Institute at St. Louis Hospital in Kansas City, and three coauthors.<sup>13</sup>

If you're sedentary and begin to exercise, you get a dose-dependent decrease in mortality, diabetes, depression, high blood pressure, coronary disease, osteoporosis, sarcopenia, falls and more. But people who are doing the highest volume of vigorous exercise start losing longevity benefits. If you're doing full-distance triathlons when you're in your 40s and 50s, your risk of atrial fibrillation increases by 500% to 800%.

However, in the case of moderate exercise — loosely defined as exercising to the point where you're slightly winded but can still carry on a conversation — there's clear evidence that more IS better and cannot be overdone.

Toward that end, walking is a powerful antiaging intervention that can reduce the risk of chronic age-related diseases like heart disease, high blood pressure, Type 2 diabetes and cancer, while relieving pain and improving function in musculoskeletal disorders.<sup>14</sup> Other walking benefits include improved sleep and increased resilience.

Walking may even help reverse the underlying cellular and molecular mechanisms of aging<sup>15</sup> by rejuvenating your mitochondria. Exercise encourages the creation of new mitochondria and helps the existing ones work better, producing more energy more efficiently. If you don't take steps to protect your mitochondrial health, your mitochondria can become damaged with age and produce less energy.<sup>16</sup>

One study found, for instance, that regular low-intensity walking can significantly improve the health of mitochondria in people with impaired glucose tolerance.<sup>17</sup> After the participants engaged in a four-month walking program, researchers observed an increase in the expression of genes related to mitochondria in their skeletal muscle.

These genes are involved in creating new mitochondria and boosting their function. Essentially, walking encouraged the body to produce more and better-performing mitochondria in the muscles.<sup>18</sup>

## **Walking Offers Mind-Body Benefits**

There are psychological, mind-body benefits of walking too, whether you walk alone or with a group – particularly when you walk in a natural environment. Researcher Marta Anna Zurawik explains in the journal *Human Movement*:<sup>19</sup>

*"For many people, a solitary walk in the natural environment is preferable as it allows for a closer communion with nature. In the solitude, individuals seek to withdraw from complex social environments, which they have little control over.*

*Thus, lone walking provides an enjoyable antidote to stress and mental fatigue through engagement with the physical environment – aesthetical awareness, fascination with the countryside, the experience of being away from daily routines, and distancing oneself from daily stresses and problems."*

That being said, walking with others provides social benefits that may relieve loneliness and isolation:<sup>20</sup>

*"Group walking is a form of togetherness, even when one is alone among strangers, because it allows walkers to establish and maintain an intimacy and familiarity with the community and create a sense of belonging to a special group, which with time may become a center of one's social life.*

*Group walks in natural environments can have an effect on well-being greater than solitary walking as they provide social settings for interactions, developing and strengthening friendships, expressing and sharing interests. This form of supportive sociality and emotional closeness combats feelings of loneliness and isolation, which can have significant benefits for social well-being."*

## **How Much Walking Is Ideal?**

As for how much walking is ideal, it depends on your age, health goals and fitness level. Whether or not you're wearing a weighted vest should also be considered. The average American walks about 3,800 steps a day, which is just short of 2 miles. It's about 2,000 steps per mile, and every 1,000 steps you get on average per day reduces your mortality by 10% to 15%, O'Keefe notes. In our interview, he explained:

*"There's been more and more studies on this all the time, using activity trackers. We're getting big data, like the UK biobank, which is a half a million people, and there's a sizable subgroup of them who have been wearing activity trackers and been followed for 10 years now.*

*Clearly, more is better. You get the big gains going from sedentary lifestyles – 2,000 to 3,000 steps a day – up to 7,000 or 8,000. [Here] you have this very steep reduction in mortality, improvement in survival. It continues to about 12,000 steps a day. Most of the studies show that it plateaus at 12,000."*

To ensure you're engaging in the right amount of walking for you, I recommend tracking your steps using a [fitness tracker](#) like the Oura ring. Most cellphones also have free activity trackers, so in a pinch you could carry your phone with you. It's not ideal due to

the electromagnetic fields (EMFs) emitted, but you could put it in airplane mode or, better yet, in a Faraday bag to reduce those risks.

## Sources and References

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- <sup>1, 19, 20</sup> [Human Movement 2020; 21\(2\):1-8](#)
- <sup>2</sup> [J Clin Med. 2019 Jan; 8\(1\): 41., Abstract](#)
- <sup>3, 11</sup> [Yahoo May 28, 2024](#)
- <sup>4</sup> [Med Sci Sports Exerc. 2006 Apr;38\(4\):746-52. doi: 10.1249/01.mss.0000210198.79705.19](#)
- <sup>5</sup> [Ergonomics. 2022 Jan;65\(1\):147-158. doi: 10.1080/00140139.2021.1961876. Epub 2021 Aug 6](#)
- <sup>6, 7</sup> [GoRuck October 2021, Why Humans Were Born to Ruck](#)
- <sup>8</sup> [CNN September 16, 2023](#)
- <sup>9</sup> [Well + Good October 28, 2023](#)
- <sup>10</sup> [J Strength Cond Res. 2019 Sep;33\(9\):2338-2343. doi: 10.1519/JSC.0000000000003243](#)
- <sup>12</sup> [Women's Health September 15, 2023](#)
- <sup>13</sup> [Missouri Medicine March-April 2023; 120\(2\): 155–162](#)
- <sup>14, 15, 16</sup> [GeroScience. 2023 Dec; 45\(6\): 3211–3239](#)
- <sup>17, 18</sup> [Diabetes Care. 2015 Jun;38\(6\):1154-60. doi: 10.2337/dc14-2606. Epub 2015 Mar 20](#)