

# Weighted vests: Should you use them during exercise?

June 6 2023, by Christopher Gaffney

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Credit: AI-generated image ([disclaimer](#))

Weighted vests have long been popular with athletes and celebrities such as David Beckham and former *Hollyoaks* star Gemma Atkinson. But interest in their use may have been piqued recently after Facebook founder Mark Zuckerberg shared a sweaty selfie of himself [wearing one](#) on Instagram.

Weighted vests usually weigh 5-20kg. They're typically worn to increase exercise intensity. Some vests are a fixed weight and others contain pockets where different weight plates can be added before putting it on.

Historically, weighted vests have been used to train soldiers to carry heavy loads. These might include [protective equipment](#) that soldiers wear, such as [bullet-proof vests](#), which weigh around 10kg. In some countries, firefighters are also required to [train with weighted vests](#) to prepare them for the demands of their job.

More recently, people have been using weighted vests during workout challenges, as part of CrossFit or even while running, in the hope of boosting their fitness. And research backs their benefits.

For instance, [one study found](#) that runners who wore a weighted [vest](#) used more oxygen—a marker of fitness—than those who didn't.

Participants were given a weighted vest (9kg for men and 6kg for women) and instructed to jog at half the intensity they were capable of. Alongside using more oxygen, the weighted vest group had a higher heart rate and burned more calories. The men who wore weighted vests while running also burned more carbohydrates.

These results mean that people who run with a weighted vest may get fitter quicker, and will probably [burn more body fat in the long term](#). However, you have to be fit to undertake these kinds of challenging workouts and see these types of results.

Weighted vests can also help to boost intensity during resistance training workouts. One study compared the effect of [wearing a weighted vest](#) on participants who undertook a six-week military-style training program. Participants completed various types of training, including running and calisthenics (a type of resistance training that uses bodyweight exercises

to build strength).

The researchers found that the participants who wore the weighted vests showed a nearly 4% improvement in their performance on an uphill treadmill walk compared with the [control group](#) who didn't wear a vest. They also had an almost 4% improvement in the amount of oxygen their body used during exercise. However, the improvements in calisthenics measures (performing push ups and sit-ups) were similar in both the group who wore vests and the group who didn't. It's not clear why there was little difference between the two groups.

Weighted vests are also beneficial during less intense workouts. One study found that when men wore a 9kg weighted vest while [walking uphill](#) for ten minutes, their heart rate increased by ten additional beats per minute—a sign their body was working harder. They also burned 6% more calories while wearing the weighted vest compared with when they weren't wearing one.

So doing something as simple as wearing a weighted vest on your daily dog walk could have a big benefit to your [physical health](#)—including your cardiovascular health and metabolism.

While we still don't have much evidence showing whether weighted vests themselves improve our ability to gain muscle, we do know that wearing them can have big benefits for cardiovascular health. We also don't have much research on older participants—and what studies we do have have used lighter weights (1-5kg), which may [have no effect](#). It will be important for more research to be done which looks at how weighted vests may benefit many different groups of people.

## Potential risks

It's important to note that weighted vests may also come with certain

risks. Some research in [military personnel](#) found that carrying heavy items on their back or torso carried an increased risk of [musculoskeletal injury](#), particularly in the legs and the back. This could be because carrying weight increases the [amount of force](#) that exists between the body and the ground—making it harder on the joints when moving. However, much of this research is on carrying loads over 25kg, often more than what is used for weighted vests.

Research also shows that [military personnel](#) who frequently carry a heavy load experience changes in their [walking and running gait](#). Typically, this manifests as a shorter stride. These changes probably occur to compensate for carrying more weight—and may in turn increase the risk of injury.

But [my research](#) using weighted vests in CrossFit showed no changes in gait. This suggests that using a weighted vest occasionally during training may not necessarily increase your risk of leg, knee or ankle injury.

Most research suggests the heavier the load, the [greater the risk](#) of injury. This is because heavy loads make our [backs and torsos stiffer](#), which can increase the risk of muscle and tendon strains.

As such, most people in good health who don't have any existing injuries can probably safely use a weighted vest during their workouts. But to avoid the risk of injury, make sure you start with a light weight at first (around 2-3kg) and gradually increase the weight over several weeks as your body becomes accustomed to it. This will maximize the benefits that weighted vests afford while limiting the risk of injury from pushing too hard too soon.

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