

Three rules for adding weight to your backpack that will boost the benefits of exercise

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

Walking is a great exercise for keeping your physical and mental health in check. But if you're looking to give your daily walks a boost, you might want to give "rucking" a try.

Rucking is a military term used to describe a [march or hike with weight](#). This is commonly done using a weighted rucksack or vest. It's an extremely versatile exercise, meaning it can be done almost anywhere. You can also adjust the length of your walk, the amount of weight you carry and even where you walk (such as on level ground or hiking trails) depending on your fitness level.

Rucking blends [strength training](#) and [aerobic exercise](#), which means it can have many benefits to both [physical](#) and [psychological health](#)—particularly if done outdoors. Here are some of the benefits associated with rucking.

Helps with weight management

Research into walking and running with a weighted vest (which has a similar effect to a weighted backpack) shows that carrying additional weight while walking [uses more energy](#). This may result in your burning more calories than you would during a normal walk.

The amount of additional calories you'll burn while rucking compared to walking will vary depending on a variety of factors—including fitness level, age and the weight you're carrying. Sources generally indicate that the calorie expenditure is [much greater](#) compared to other activities such as walking. There are also [tools online](#) that can help calculate how many calories you might burn while rucking.

This can be particularly beneficial for those who are looking after their [weight](#) or hoping to improve their overall physical fitness.

Better mental well-being

One of the unique aspects of rucking is that it's typically done outdoors.

Research shows that exercising outdoors can have a profound effect on mental well-being. Though it's not clear why green exercise has such an effect, evidence points toward a decrease in [stress through nature connectedness](#). This can help reduce feelings of [anxiety, depression](#) and even fatigue.

[Bringing a friend](#) along may boost these [mental health](#) benefits even further—with the added bonus of lowering blood pressure.

Builds stronger bones

Research on weighted vests shows they can promote and preserve [bone health](#) by increasing [bone mineral density](#)—particularly in places where fractures are common, including our knees, ankles and hips.

Improving bone [mineral density](#) can make doing day-to-day activities (such as carrying your shopping) easier. It can also [improve balance](#), which reduces risk of falls, especially later in life.

This aspect of rucking may be particularly important for people as they get older. As bone density [declines with age](#), preserving it is vital for reducing [age-related fractures](#) and falls.

Aerobic exercise alone may not be sufficient for preserving bone density—but combining aerobic and strength training can [promote healthy bone growth](#), which is why rucking may be a benefit.

Before you begin

As with any exercise, rucking does not come without risk—especially when starting out. Because the exercise combines additional weight often with uneven hiking terrain, this may also make it riskier than other

workouts.

Studies have found that in soldiers, [rucking can result](#) in back pain, lower body stress fractures (such as shin splints), blisters and knee pain.

This is probably due to the way your running and walking posture changes when additional weight is introduced. For example, hiking with a weighted pack has been shown to [increase torso lean](#), changes your [normal stride](#) and increases the amount the [knee has to bend](#) when walking and running.

On their own, each of these elements wouldn't normally pose a risk. But when you add in fatigue after thousands of steps, you may be at greater risk of injury. Fortunately, these injuries are less common when walking and hiking than [when running](#) with weight—so only increase your pace when you're ready.

If you're keen to give rucking a try but want to avoid injury, here are a few other things to keep in mind.

1. Add load gradually

Some studies recommend only carrying a load of [30% of your bodyweight](#). Others, however, have reported participants experience discomfort carrying [20% of their bodyweight](#) when exercising for more than an hour.

To avoid this when starting out, carry a backpack that's as light as 5%–10% bodyweight. For someone who weighs 70kg, this would mean carrying around 3.5–7kg in your backpack.

You should also add distance gradually before you increase the amount of [weight](#) in your bag. This will mean you still get the benefits of rucking

with lower risk of injury and discomfort.

2. Keep it short

A study in female hikers reported many experienced [negative muscle changes](#), (particularly in muscles that support movement, such as the knees) after just 2km of walking. So it's best to plan a short route those first few times and build up gradually.

The same can be said for frequency. Doing too many rucking sessions too soon may lead to tiredness and overuse injury. Start with one to two sessions per week, aiming to eventually build up to the [recommended 300 minutes](#) of moderate intensity activity per week.

3. Choose the right kit

When choosing a backpack or rucksack for rucking, prioritize options with adequate padding and [proper weight distribution](#).

To make choosing a backpack easier, many companies have even designed specialist packs with weighted plates or sandbags. You could also use a standard hiking backpack with a [water reservoir](#), and adjust the amount of liquid in the pack. Or, you can use items you have readily available at home to a well-padded and supportive backpack—such as cans or bags of rice.

As with any new workout regime, it's always recommended you consult your GP to see if it's right with you. But following these guidelines should ensure you can try rucking with confidence and minimal risk of injury.

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