

# Rucking 101 – The Exercise Trend Inspired by the Military, Perfect for All Fitness Levels

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## STORY AT-A-GLANCE

- › Rucking is the practice of walking with a weighted backpack, originating from military training. It combines elements of cardiovascular exercise with strength training, transforming a regular walk into a more intensive full-body workout
- › Benefits of rucking include increased calorie burn, improved strength and endurance, enhanced cardiovascular health and better stability. It engages more muscle groups than regular walking and can be adapted to various fitness levels
- › To start rucking, use a well-fitting backpack with proper weight distribution. Start with a light load, maintain good posture and gradually increase weight and distance as your skills improve
- › Key considerations and additional safety tips to perform rucking safely and effectively are included below

Walking is a fundamental human activity, but its benefits extend far beyond just getting from one place to another. Walking is also a low-impact exercise that can be done almost anywhere and is nearly impossible to overdo, making it a highly accessible and sustainable way to improve your overall health and well-being.

Regular walking has numerous well-documented benefits. It strengthens your heart, enhances circulation and maintains a healthy weight.<sup>1</sup> It also boosts mood, reduces

stress and improves cognitive function.<sup>2</sup> For older adults, walking is essential for maintaining mobility and independence.<sup>3</sup>

While walking on its own is a fantastic activity, there are ways to enhance its benefits even further. One such method is rucking, a form of weighted walking that effectively combines elements of cardiovascular exercise with strength training, maximizing your fitness gains.<sup>4</sup>

## **What Is Rucking?**

Rucking, at its core, is simply walking with a weighted backpack. This practice has its roots in the military, where soldiers are required to carry heavy loads of gear while marching or walking over long distances. The term "ruck" comes from "rucksack," a military term for a backpack, while the term "rucking" is derived from ruck marching, a fundamental skill used in the military.<sup>5</sup>

In recent years, rucking has transitioned from a purely military activity to a popular exercise among fitness enthusiasts. The principle behind it is simple — by adding weight to your body during a walk, you increase the intensity of the exercise while maintaining its low-impact nature.

Rucking provides a way to turn a regular walk into a more challenging workout that engages more muscle groups and burns more calories. Former U.S. Navy SEAL Stew Smith, a fitness instructor and special ops coach, noted in a CNN article<sup>6</sup> that rucking burns 30% to 45% more calories compared to walking without the extra weight.

The added weight primarily works the legs, core and back, but also engages the shoulders and arms as they work to stabilize the pack.<sup>7</sup> By engaging your entire body, it leads to improved overall strength and endurance. The extra weight also increases the cardiovascular demand, leading to improved heart health over time.<sup>8</sup>

Jason McCarthy, co-founder of GORUCK, a company specializing in rucking equipment, aptly describes this exercise as "cardio for people who hate to run, and lifting for people who hate the gym."<sup>9</sup>

Rucking can be adapted to various fitness levels and goals. Beginners might start with a light weight and gradually increase it as they build strength and endurance. If you're suited for a more advanced activity, increase the weight, distance or terrain difficulty to challenge yourself continually.

You can even perform indoor rucking by using a treadmill or walking up and down stairs with a weighted pack. This scalability makes rucking a versatile and effective exercise for a wide range of individuals.<sup>10</sup>

## **'Humans Were Born to Ruck'**

Compared to other mammals, humans may seem athletically inadequate because we're slower and weaker. However, our unique evolutionary advantage lies in our ability to carry loads and endure long distances, an adaptation that has been vital for our survival throughout history.

Unlike most animals, humans have developed the ability to carry loads effectively over long distances. Our musculoskeletal system is uniquely adapted to manage and distribute weight efficiently due to the precise and coordinated movements of its components – bones, joints, muscles, tendons and ligaments.<sup>11</sup>

However, nowadays we have gradually started to remove carrying from our daily activities. Michael Easter, a professor at the University of Nevada, Las Vegas, explains this shift in his article:<sup>12</sup>

*"As we evolved, running was relatively rare. It was reserved mostly for hunts ... 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' ...*

*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 re-engineered carrying back into our days – except for ruckers."*

Scientific evidence backs up the benefits of adding rucking into your fitness routine. A study in the *Journal of Strength and Conditioning Research*<sup>13</sup> found that walking while carrying a load significantly improved various psychophysical responses. After 10 weeks of this exercise, participants showed marked gains in squat jump maximal force, pushups, situps and estimated maximal oxygen uptake.

Another study published in the *Journal of Clinical Medicine* demonstrated that weighted walking exercises improved lower limb power by 10% to 11%, stair climbing time by 9% and stair climbing power by 10% in older women aged 65 to 74.<sup>14</sup>

## **Rucking Outdoors Has Multiple Benefits**

Rucking is typically done outdoors, and exercising in nature brings a wealth of benefits that extend beyond physical gains. Research suggests that outdoor workouts boost memory, reduce stress, and alleviate symptoms of depression.<sup>15</sup>

Another key benefit of rucking outdoors is the exposure to sunlight,<sup>16</sup> which boosts your body's production of vitamin D, an essential nutrient for bone health, immune function and overall well-being. However, it's important to approach sun exposure with care, especially if your diet is high in seed oils (rich in [linoleic acid](#), or LA).

These oils migrate to your skin and oxidize when exposed to sunlight, causing inflammation and DNA damage, which makes you more prone to sunburn. If you're on a high-LA diet, I recommend avoiding intense sun exposure until you've reduced your seed oil intake for four to six months. As you reduce your LA intake, you can slowly increase your time rucking outdoors and safely enjoy an hour or more during peak sunlight hours.

## **Getting Started with Rucking**

Getting started with rucking is relatively simple, but there are some key considerations to ensure you do it safely and effectively. The first step is choosing the right backpack.

While any backpack can technically be used, it's best to choose one that has wide, padded shoulder straps and a waist strap to distribute the weight evenly and reduce movement. "Don't put weight in a string bag," Smith advised. "Most straps are not made to hold 10, 20 or more pounds, and the skinny straps will really rip up your shoulders."<sup>17</sup>

Make sure the backpack fits snugly against your back, with the weight distributed so it doesn't pull away from your shoulders. Back panels also add extra comfort. Once you have a suitable pack, the next step is to choose the weight you'll be carrying. For beginners, it's recommended to start light with 10 pounds. This allows your body to adjust and reduces the risk of injury.

As you become more comfortable and your strength improves, you can gradually increase the weight. Common items used for weight include specially designed ruck plates, sandbags or even everyday items like books or water bottles. It's important to pack your backpack properly. Heavier items should be placed high in the pack, near your shoulder blades, and close to your back. This positioning maintains your center of gravity and reduces strain on your back.

If using loose items for weight, it's important to secure them so they don't shift around while you're walking. Before setting out, take the time to adjust your pack properly. The straps should be tightened so that the pack sits high on your back, with the weight resting on your upper back rather than pulling down on your shoulders. If you don't want to worry about selecting the proper backpack and weights, consider investing in a backpack specifically made for rucking.

When rucking, it's important to maintain good posture. Keep your head up, shoulders back, and engage your core. This distributes the weight effectively and reduces the risk of strain or injury. You might also need to slightly adjust your walking technique compared to unweighted walking. Take shorter, more frequent steps rather than long strides, which puts extra stress on your knees and lower back.

Start with shorter distances and gradually build up. A good starting point is a 15- to 20-minute ruck, which you can increase over time as your fitness improves. Pay attention to

your body and don't push yourself too hard. It's normal to feel some fatigue, but sharp pain or discomfort is a sign to stop and reassess your technique or weight.<sup>18</sup>

## Important Considerations When Rucking

To perform rucking safely, Smith suggests keeping these essential guidelines in mind:<sup>19</sup>

**Walk before you ruck** — Don't jump into rucking without establishing a solid walking routine first. If you're new to exercise or haven't been active for a while, begin by walking daily for 30 minutes. After a month or so, once walking becomes easier, gradually add weight or increase your distance and speed.

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**Start with a weighted vest** — If you don't have a ruck yet, consider starting with a weighted vest. Once you're comfortable, transition to military-issue rucking gear, especially if you plan to join the military.

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**Progress gradually** — No matter your starting point, aim to increase the weight by 5 to 10 pounds every few weeks. This gradual progression improves strength without overwhelming your body.

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**Build your lower body strength** — It's ideal to have strong legs, hips, lower back, and upper body, especially if you're planning to carry 25% to 40% of your body weight. Incorporate strength training exercises like deadlifts, squats and lunges into your routine to build the necessary strength before rucking.

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**Do not ruck daily** — Unlike walking, which you can do every day without the risk of overdoing it, rucking shouldn't be performed daily. Limit your rucks to two sessions a week, similar to heavy-lifting leg days. In fact, individuals preparing for military programs often ruck on leg days each week.

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**Care for your feet** — To do rucking comfortably, taking care of your feet is important. Start by toughening them up through barefoot walks on sand to build resilience.

Choose the right footwear – select boots or shoes that provide proper support and fit well to prevent blisters and discomfort.

Consider using fitted inserts for added comfort and stability. Wearing two pairs of socks also reduces friction and moisture buildup. Always monitor your feet closely, especially if they get wet, and address any issues immediately to prevent injuries.

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**Be patient and trust the process** – Proper preparation for rucking takes time. If you're new to rucking, start gradually, especially if you haven't built a solid foundation in strength training. It might take several months or even a year to safely handle longer, more challenging rucks. Progress logically, and avoid pushing yourself too hard too soon – attempting a 10-mile ruck on your first day isn't advisable.

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**Understand that rucking is challenging** – Don't underestimate how difficult rucking can be. Practice regularly to build your skill and endurance, and be prepared to invest significant time into your rucking progression each week.

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## **Additional Safety Tips to Keep in Mind**

Whether you're new to rucking or a seasoned enthusiast, these guidelines will help you enjoy a safer and more effective rucking session:<sup>20</sup>

- **Hydrate well** – Ensure you stay well-hydrated before, during and after your ruck. Carry water with you and take regular sips to prevent dehydration, especially on hot days.
- **Warm up and cool down** – Always start with a warm-up to prepare your muscles and joints for the workout. After rucking, perform a cool-down routine that includes stretching to aid in recovery and prevent stiffness.
- **Plan your route** – Choose safe and manageable routes, especially when you're just starting out. Avoid isolated areas or difficult terrains until you build more experience

and confidence. Consider rucking with a partner or group as well. This not only adds a social element to the activity but also provides an extra layer of safety.

- **Be aware of your surroundings** – This is especially important if you're rucking in urban areas or on trails. The added weight can affect your balance and reaction time, so it's important to stay alert to hazards like uneven terrain or traffic.

## Sources and References

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- <sup>2</sup> [Reviews on Environmental Health, vol. 39, no. 1, 2024, pp. 121-136](#)
- <sup>3</sup> [J Am Geriatr Soc. 2020 Apr; 68\(4\): 872–881](#)
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- <sup>7, 20</sup> [The Greatist, August 31, 2024](#)
- <sup>8, 13</sup> [J Strength Cond Res. 2019 Sep;33\(9\):2338-2343](#)
- <sup>9, 12</sup> [GORUCK, "Why Humans Were Born to Ruck"](#)
- <sup>11</sup> [Differentiation Volume 86, Issue 3, October 2013, Pages 104-111](#)
- <sup>14</sup> [J Clin Med. 2019 Jan; 8\(1\): 41](#)
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- <sup>16</sup> [New York Post, September 2, 2024](#)
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