

IMPLEMENTING RUCK TRAINING (LOADED WALKING) WITH THE AGING ADULT

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It is fairly common for older adults to experience some type of physical limitation over the years, which can lead to a decrease in their physical ability. Running, biking, swimming, and other physical activities might be too much for their bodies to handle. However, walking is a simple skill that almost everyone can continue to do as they age. Walking allows for the ability to improve or maintain a stable and balanced gait, improve cardiovascular health, and help create a caloric deficit.

Simply put, rucking is loaded walking (a version of loaded carries) for distance. Ruck training is a version of performing loaded carries that can assist in developing full body strength (anti-sarcopenia), improve bone density (anti-osteopenia), and help the aging population maintain their ability to walk as they age. Therefore, the physical activity of “rucking” can aid the aging individuals battle sarcopenia and osteopenia by carrying load with them on their daily walks. The following provides a simple guide to ruck training for the aging population.

CHOOSING THE LOAD FOR RUCK TRAINING

Rucking can be broken down into two components: load and distance.

The first thing that needs to be selected for the program design will be the load that is carried. Load selection will be based on a percentage of the client's body weight. As a starting point, the author recommends to begin ruck training by choosing to carry around a load that is 10% of the individual's body weight in a ruck (back pack), or in a loaded vest for their first few weeks of training. This can serve as general baseline because the body needs an adaptation phase of 2 – 3 weeks of walking with a light load prior to any increases (1). This adaptation phase allows the body to recognize a new demand being placed on it.

As a general rule of rucking, the author also recommends the client avoid using a load that exceeds 30% of their body weight to begin rucking. This is because excessive loading can increase the risk of skeletal injury and place a great deal of stress on the muscular system (4). The same issues can come about if the load is progressed too quickly. Steady progressive increases of five percent every two or three weeks can be used as a general guideline until the client achieves 30% of their body weight in week 11. Once that is achieved, the client is free to undulate their load as the program states or as they see fit.

The average person takes roughly 2,000 steps to walk a mile at body weight (without load) (4). The addition of a ruck or vest weighing 15 lb introduces an extra 30,000 lb (15 pounds x 2,000 steps) of stress being placed on the body's frame. This type of stress can cause shin splints, swollen or achy feet, low back discomfort, neck and shoulder pain, and several other issues if the body is not ready for such a demand. This is where a gradual

introduction of load is necessary along with a resistance training program that will assist in building bone density and strength needed to improve rucking performance. Table 1 outlines a progression of load, frequency and distance for the beginning rucker to start their training program.

SELECTING FREQUENCY

The second component of a rucking program design is the frequency in which the rucks occur. In the beginning of the sample program for beginners (Table 1) there are two rucks performed each week. Each ruck should be performed with 48 – 72 hr of rest occurring between sessions. The days between rucking should include some mobility, flexibility, and stability work, as well as some resistance training workouts. As the client advances into their training program, they will have weeks in which the number of rucks and resistance training sessions are increased to three times per week. Tables 2 and 3 are mock up outlines of a two-ruck week and a three-ruck week three-week training cycle, respectively.

SELECTING DISTANCE

The third component of rucking program design is the distance in which the client is going to cover. The author prefers to select distance based on mileage (instead of by time), and then record the time frame in which that distance is achieved. An average range of 15 – 25 minutes per mile (with a load of 10 – 20% of body weight) is a good time frame to aim for.

As shown in the sample program, the client starts off slowly with a one-mile ruck. This first ruck will set a baseline for their current level of fitness. Over the 12 weeks of training, the client will increase their efforts up to four miles (60 – 100 min) ruck with the intention of improving their mile average. In the sample program provided, every third week the client is directed to “seek hills” in their rucking rout. Including hill training into their rucking will increase their work capacity due to the increased challenge. The client should record their elevation gained in their ruck if they use a smart technology watch that provides such a function.

Hill training will probably reduce the client's average mile time, which is normal. The purpose of seeking hills is to increase the client's work capacity (tidal volume), muscular endurance, muscular strength, and ability to overcome the challenge of the elevation gained on each hill. The physical improvements gained from hill training will aid the client on non-hill rucks by improving their mile splits and overall time.

TABLE 1. SAMPLE PROGRAM FOR BEGINNERS

	LOAD	FREQUENCY	DISTANCE
Week 1	10%	2 Sessions (48 Hours Apart)	1 Mile
Week 2	10%	2 Sessions (48 Hours Apart)	1 Miles
Week 3	10-15%	2 Sessions (48 Hours Apart)	1.5 Miles (Seek hills)
Week 4	15%	2 Sessions (48 Hours Apart)	1.5 Miles
Week 5	15%	2 Sessions (48 Hours Apart)	2 Miles
Week 6	15-20%	2 Sessions (48 Hours Apart)	2 Miles (Seek hills)
Week 7	20%	3 Sessions (48 Hours Apart)	3 Miles
Week 8	20%	3 Sessions (48 Hours Apart)	3 Miles
Week 9	20-25%	3 Sessions (48 Hours Apart)	3 Miles (Seek hills)
Week 10	25%	3 Sessions (48 Hours Apart)	4 Miles
Week 11	30%	3 Sessions (48 Hours Apart)	3 Miles
Week 12	25%	3 Sessions (48 Hours Apart)	4 Miles (Seek hills)

TABLE 2. SAMPLE TRAINING CYCLE WITH TWO TIMES PER WEEK

Two Rucks Per Week: Weeks 1 – 6

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Ruck	R E S T		Ruck (Short)			R E S T	Ruck (Long)
Resistance Training		Full Body			Full Body		
Mobility		Mobility (10-15 Minutes)		Mobility (10-15 Minutes)			Mobility (10-15 Minutes)

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TABLE 3. SAMPLE TRAINING CYCLE WITH THREE TIMES PER WEEK

Three Rucks Per Week: Weeks 7 – 12

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Ruck	R E S T		Ruck (Short)		Ruck (Short)		Ruck (Long)
Resistance Training		Full Body		Full Body		Full Body	
Mobility		Mobility (10-15 Minutes)		Mobility (10-15 Minutes)		Mobility (10-15 Minutes)	

EQUIPMENT NEEDS

For clients to maximize their experience of rucking, they will need a few key items: quality outdoor shoes, rucksack or loaded vest, headlamp (if they go out at night), water, and snacks. Here is a deeper look into each of these to help clients enjoy their rucking session and experience success:

QUALITY OUTDOOR SHOES

Quality foot care and protection is vital for the rucker who plans to put in many miles on their feet week after week. An outdoor trekking or cross training shoe will provide durability and make for good ankle support for ruckers.

RUCKSACK (WITH HIP SUPPORT) OR LOADED VEST

A rucksack (back pack) made of high-quality material that can carry heavy load and not come apart is well worth the investment. The author suggests a rucksack that has hip supports to help ease the load that is placed on the shoulders.

Loaded vests can be used to ruck with as well, although they do not typically have hip support accessories to help ease the load on the shoulders. Rucksacks and vests are loaded via weighted plates or sandbags. Some attempt to use dumbbells or lifting plates in their rucks or vests; however, they generally do not fit as well as they should and tend to drop down low in the rucksack or vest.

Official rucking plates can be secured in the ruck or vest tightly and held high on the body for quality control of the load. You do not want the load to flop around while rucking or to hang low on the body. The higher on the torso (front or back), the better.

HEADLAMP, WATER, AND SNACKS

If clients want to ruck in the dark, then the use of a headlamp will be very useful. Remind them to bring extra batteries, just in case and suggest the use of some safety flashing lights (blue or red) to wear on their ruck. Ruckers should bring enough water to keep them hydrated while on their ruck. It is better to have too much water than not enough, and the same goes for carbohydrate snacks that are easy to carry, such as energy gels, to help with energy.

RESISTANCE TRAINING TO ACCOMPANY RUCK TRAINING

The client's ability to ruck will be improved potentially with the implementation of resistance training on a regular basis. Similarly, their ability to carry heavy load while walking will benefit their ability to perform resistance training. Therefore, the two go hand-in-hand and complement each other well.

A focus on lifting heavier loads in the weight room can assist the client in building the strength needed to increase the weight carried in their rucks. Table 4 provides a sample program design template for outlining how to develop the specific strength needed to improve a client's rucking ability. Areas of focus include: lower body pushes and pulls, upper body pulls, loaded carries, split stance lifts, overhead actions, and sled work.

RUCKING TIPS

After the 12 weeks have been completed, the rucker can restart the program with the new application of stimulus for their body to adapt to. They can do this in two ways: by increasing the load in which they are rucking or by increasing the distance in which they ruck.

Finally, when rucking, it is important to remember to ruck against traffic, wear reflective gear, bring more water than you will need, look both ways, do not talk to strangers, enjoy the challenge, and remember to have fun.

TABLE 4. SAMPLE PROGRAMMING TEMPLATE

LIFTING COMPONENT	EXAMPLES	REPS AND SETS
Lower Body Pushes	Goblet squats	12 – 15 reps
	Sit to stands	2 – 4 sets
		Moderate load
Lower Body Pulls	Deadlifts	12 – 15 reps
	Kettlebell swings	2 – 4 sets
		Moderate load
Upper Body Pulls	Low pulley rows	8 – 12 reps
	High pulls/cleans	2 – 4 sets
		Moderate load
Loaded Carries	Farmer carries	30 – 50 meters
	Suitcase carries	Heavy load
Split Stance Lifts	Drop step lunges	12 – 15 reps
	Step ups/downs	2 – 4 sets
		Moderate load
Over Head Actions	Snatches	8 – 12 reps
	Push press	2 – 4 sets
		Moderate load
Sled Work	Tank/prowler push	30 – 50 meters
	Sled drags	Heavy load

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ABOUT THE AUTHOR

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