

Table 4. Creatine supplementation does not enhance performance in older adults

Author	Training and Familiarization Protocol	Study Design and Supplement Protocol	Significant Results
Rawson et al., 1999 [16]	No training.	<i>Double-blind, placebo controlled, randomized design.</i> Supplemented 20 males with Cr or PLA at a dose of 20 g/day for 10 days followed by 4 g/d for 20 days.	↔ strength of elbow flexors with Cr
	Testing occurred at baseline and following 10 and 30 days of supplementation.		↔ body mass, body density or fat-free mass with Cr
Rawson et al., 2000 [21]	No training.	<i>Double-blind, placebo controlled, randomized design.</i> Supplemented 17 males with 20 g of Cr and 4 g of sucrose (Cr) or 24 g of sucrose (PLA) for 5 days.	↑ performance in leg fatigue task with Cr
			↔ isometric strength of elbow flexors with Cr
Jakobi et al, 2001 [54]	No training.	<i>Placebo controlled, randomized design.</i> Supplemented 12 men with either Cr and maltodextrin (20 g/d of each) or a PLA (20 g/d of maltodextrin).	↑ isokinetic knee extension with Cr, but authors concluded not meaningful
			↑ body mass with Cr
			↔ MVC or muscle activation with Cr
			↔ time to fatigue, decline in MVC, muscle activation or contractile properties with Cr
	Testing consisted of a familiarization protocol followed by baseline testing and post-testing.		↔ rate of recovery, voluntary force or stimulated contractile force during recovery with Cr
			↔ body mass with Cr

Berman et al., 1998 [23]	Following four familiarization sessions a whole body resistance training program was initiated that involved lifting 3 days per week for 7 weeks. Testing was conducted at baseline and following 7 weeks of training.	<i>Double-blind, placebo controlled, randomized design with 32 men and women.</i> Four groups: Cr-control, PLA-control, Cr-exercise, PLA-exercise. Supplemented with Cr or PLA at 20 g/day for 5 days and 3 g/d for 47 days.	↔ body mass, body fat or lower limb muscle volume with Cr ↔ 1 and 12 RM and isometric intermittent endurance tests for bench press, leg press and leg extension with Cr.
Eijnde et al., 2003 [20]	Training consisted of 24 minutes of endurance training and a whole body resistance training program. Testing was conducted at baseline, 6 months following training and 1 year post-training in a subgroup of 20 participants.	<i>Double-blind, placebo controlled, randomized design.</i> Supplemented 46 men with either Cr or PLA at a dose of 5 g/d for 6 months.	↔ maximal isometric strength with Cr ↔ Body mass with Cr ↑ total creatine in Cr group after 6 months

↑,↓,↔ Signifies increase, decrease, or no change compared to a control/placebo condition

Cr: creatine, PLA: placebo, RM: repetition maximum, MVC: maximal isometric voluntary force