

Table 7. The short- (ST), medium- (MT) and long-term (LT) effects of RET on all outcomes reported in older adults ≥ 41 years old with cardiometabolic risk factors.

Blood marker	Number of studies	Number of participants		Mean difference [95% CI]	P values	Heterogeneity	
		RT	CON				
SBP (mmHg)	ST	2	37	37	-5.19 [-7.55, -2.83] †	< 0.0001*	$\chi^2 = 4.4, I^2 = 77\%, P = 0.04$
	MT	17	304	312	-8.80 [-9.90, -7.69] †	< 0.00001*	$\chi^2 = 95.83, I^2 = 83\%, P < 0.00001$
	LT	4	101	106	-3.42 [-8.03, 1.19] †	0.15	$\chi^2 = 4.69, I^2 = 36\%, P = 0.2$
DBP (mmHg)	ST	2	37	37	-2.47 [-4.59, -0.35] †	0.02*	$\chi^2 = 5.45, I^2 = 82\%, P = 0.02$
	MT	15	219	230	-2.55 [-3.09, -2.01] †	< 0.00001*	$\chi^2 = 103.88, I^2 = 87\%, P < 0.00001$
	LT	3	90	97	-1.99 [-5.15, 1.18] †	0.22	$\chi^2 = 2.27, I^2 = 12\%, P = 0.32$
MAP (mmHg)	MT	2	22	24	-5.92 [-7.72, -4.13] †	< 0.00001*	$\chi^2 = 0.17, I^2 = 0\%, P = 0.68$
RHR (bpm)	MT	6	81	89	-0.44 [-1.45, 0.58] †	0.4	$\chi^2 = 55.3, I^2 = 91\%, P < 0.00001$
	LT	2	26	34	-3.06 [-8.19, 2.06] †	0.24	$\chi^2 = 1.55, I^2 = 36\%, P = 0.21$
VO ₂ max (ml/kg/min)	ST	3	74	68	3.02 [2.45, 3.59] †	< 0.00001*	$\chi^2 = 1.74, I^2 = 0\%, P = 0.42$
	MT	11	178	186	2.38 [1.78, 2.98] †	< 0.00001*	$\chi^2 = 47.0, I^2 = 79\%, P < 0.00001$
Total Cholesterol (mg/dL)	MT	10	125	127	6.65 [3.70, 9.60] #	< 0.00001*	$\chi^2 = 62.61, I^2 = 86\%, P < 0.00001$
	LT	2	26	34	-7.16 [-25.94, 11.61] †	0.45	$\chi^2 = 0.05, I^2 = 0\%, P = 0.82$
HDL-chol (mg/dL)	MT	14	243	243	1.86 [0.85, 2.87] †	0.0003*	$\chi^2 = 26.2, I^2 = 50\%, P = 0.02$
	LT	3	90	97	2.03 [-1.81, 5.87] †	0.3	$\chi^2 = 0.0, I^2 = 0\%, P = 1.0$
LDL-chol (mg/dL)	MT	9	186	182	-13.42 [-15.94, -10.91] †	< 0.00001*	$\chi^2 = 98.19, I^2 = 92\%, P < 0.00001$
	LT	3	90	97	-0.22 [-13.57, 13.13] †	0.97	$\chi^2 = 0.86, I^2 = 0\%, P = 0.65$
Triglycerides (mg/dL)	MT	14	225	220	-5.75 [-9.62, -1.87] †	0.004*	$\chi^2 = 28.15, I^2 = 54\%, P = 0.009$
	LT	3	90	97	-17.69 [-36.83, 1.45] †	0.07	$\chi^2 = 3.89, I^2 = 49\%, P = 0.14$
Fasted insulin (μ U/ml)	MT	11	139	128	-1.44 [-2.43, -0.45] †	0.004*	$\chi^2 = 38.07, I^2 = 74\%, P < 0.0001$
HOMA-IR	MT	4	43	40	-2.84 [-3.19, -2.50] †	< 0.00001*	$\chi^2 = 3.31, I^2 = 9\%, P = 0.35$
Fasted glucose (mg/dL)	MT	14	187	180	-2.19 [-4.09, -0.29] †	0.02*	$\chi^2 = 59.26, I^2 = 78\%, P < 0.00001$
	LT	2	26	34	-25.57 [-40.04, -11.10] †	0.0005*	$\chi^2 = 1.02, I^2 = 2\%, P = 0.0005$
CRP (mg/L)	MT	4	58	58	-2.47 [-3.97, -0.98] †	0.001*	$\chi^2 = 9.93, I^2 = 70\%, P = 0.02$

* Indicates statistical significance. † Indicates favouring resistance exercise training. # Indicates favouring control. ST – short term, MT – medium term, LT – long term, HDL-chol – high density lipoprotein cholesterol, LDL-chol – low density lipoprotein cholesterol, HOMA-IR – insulin resistance, CRP – C-reactive protein.

