

Table 6. The short- (ST), medium- (MT) and long-term (LT) effects of RET on all outcomes reported in healthy older adults ≥ 41 years of age.

Blood marker	Number of studies	Number of participants		Mean difference [95% CI]	P values	Heterogeneity	
		RT	CON				
SBP (mmHg)	MT	12	180	166	-4.36 [-5.73, -2.99] †	< 0.00001*	$\chi^2 = 41.02, I^2 = 73\%, P < 0.00001$ $\chi^2 = 0.31, I^2 = 0\%, P = 0.86$
	LT	3	72	57	-1.89 [-7.66, 3.88] †	0.52	
DBP (mmHg)	MT	12	180	166	-1.51 [-2.47, -0.54] †	0.002*	$\chi^2 = 75.02, I^2 = 85\%, P < 0.00001$ $\chi^2 = 15.57, I^2 = 87\%, P = 0.0004$
	LT	3	72	57	-5.95 [-9.30, -2.61] †	0.0005*	
MAP (mmHg)	MT	3	32	27	-3.91 [-5.37, -2.45] †	< 0.00001*	$\chi^2 = 2.0, I^2 = 0\%, P = 0.37$
RHR (bpm)	MT	13	214	186	1.80 [0.84, 2.77] #	0.0003*	$\chi^2 = 34.42, I^2 = 65\%, P = 0.0006$ $\chi^2 = 3.6, I^2 = 44\%, P = 0.17$
	LT	3	48	34	0.52 [-1.25, 2.30] #	0.56	
$\dot{V}O_2$ max (ml/kg/min)	MT	13	220	186	-0.31 [-0.90, 0.27]	0.3	$\chi^2 = 29.33, I^2 = 59\%, P = 0.004$ $\chi^2 = 2.28, I^2 = 0\%, P = 0.002$
	LT	7	125	91	1.30 [0.47, 2.13] †	0.002*	
Total Cholesterol (mg/dL)	MT	8	109	106	-8.20 [-14.52, -1.89] †	0.01*	$\chi^2 = 10.4, I^2 = 33\%, P = 0.17$ $\chi^2 = 2.32, I^2 = 14\%, P = 0.31$
	LT	3	45	28	-19.99 [-36.18, -3.80] †	0.02*	
HDL-chol (mg/dL)	MT	11	150	140	11.55 [10.16, 12.94] †	< 0.00001*	$\chi^2 = 368.51, I^2 = 97\%, P < 0.00001$ $\chi^2 = 8.16, I^2 = 75\%, P = 0.02$
	LT	3	45	28	5.01 [-0.10, 10.13] †	0.05	
LDL-chol (mg/dL)	MT	8	109	108	-1.60 [-6.58, 3.37] †	0.53	$\chi^2 = 43.85, I^2 = 84\%, P < 0.00001$ $\chi^2 = 1.14, I^2 = 12\%, P = 0.29$
	LT	2	30	18	-5.63 [-15.79, 4.53] †	0.28	
Triglycerides (mg/dL)	MT	10	151	146	-13.27 [-15.92, -10.61] †	< 0.00001*	$\chi^2 = 112.64, I^2 = 92\%, P < 0.00001$ $\chi^2 = 0.27, I^2 = 0\%, P = 0.61$
	LT	2	30	18	6.02 [-8.62, 20.66] #	0.42	
Fasted insulin (μ U/ml)	MT	3	73	73	-1.09 [-1.28, -0.89] †	< 0.00001*	$\chi^2 = 2.1, I^2 = 5\%, P = 0.35$ $\chi^2 = 0.43, I^2 = 0\%, P = 0.51$
	LT	2	47	48	0.27 [-0.03, 0.57]	0.08	
HOMA-IR	LT	2	23	18	-0.44 [-1.07, 0.19] †	0.17	$\chi^2 = 0.1, I^2 = 0\%, P = 0.75$
Fasted glucose (mg/dL)	MT	7	134	130	-4.82 [-6.26, -3.38] †	< 0.00001*	$\chi^2 = 123.38, I^2 = 95\%, P < 0.00001$ $\chi^2 = 5.45, I^2 = 63\%, P = 0.07$
	LT	3	56	47	3.06 [2.30, 3.82] #	< 0.00001*	
CRP (mg/L)	MT	4	74	69	-0.26 [-0.32, -0.20] †	< 0.00001*	$\chi^2 = 4.71, I^2 = 36\%, P = 0.19$

* 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.