

**Supplementary table 2** Summary results of the studies on the dose-response relationship between running and the risk of all-cause mortality

Dose type	Lee et al. (2014; pace), Lee et al. (2016; other variables)		Schnohr et al. (2015)		Oja et al. (2017)	
	Category	HR (95% CI)	Category	HR (95% CI)	Category	HR (95% CI)
Duration	<51 min/week	0.70 (0.58, 0.85)	< 1 hour/week	0.47 (0.29, 0.77)	<51 min/week	0.93 (0.67, 1.28)
	51-80 min/week	0.67 (0.55, 0.80)	1-2.4 hours/week	0.29 (0.11, 0.80)	51-80 min/week	0.75 (0.39, 1.44)
	81-119 min/week	0.67 (0.55, 0.82)			81-119 min/week	0.58 (0.22, 1.55)
	120-175 min/week	0.71 (0.58, 0.86)			120-175 min/week	1.18 (0.61, 2.28)
	176-209 min/week	0.74 (0.52, 1.04)	2.5-4 hours/week	0.65 (0.20, 2.07)	176-209 min/week	0.75 (0.19, 3.02)
	210-269 min/week	0.58 (0.40, 0.83)			210-269 min/week	0.38 (0.05, 2.73)
	≥270 min/week	0.97 (0.73, 1.27)	> 4 hours/week	0.60 (0.08, 4.36)	≥270 min/week	0.92 (0.38, 2.21)
Frequency	1-2 times per week	0.65 (0.51, 0.84)	≤1 time	0.29 (0.12, 0.72)	≤1 time per week	1.05 (0.77, 1.42)
	3 times per week	0.68 (0.56, 0.82)	2-3 times	0.32 (0.15, 0.69)	2 times per week	0.62 (0.31, 1.25)
					3 times per week	0.69 (0.29, 1.65)
	4 times per week	0.67 (0.56, 0.80)	>3 times	0.71 (0.29, 1.75)	4 times per week	1.05 (0.39, 2.81)
	5 times per week	0.71 (0.60, 0.84)			5 times per week	0.30 (0.04, 2.12)
	6 times per week	0.73 (0.57, 0.93)			6 times per week	0.41 (0.06, 2.92)
	7+ times per week	0.87 (0.65, 1.15)			7+ times per week	1.93 (0.92, 4.05)
Pace/speed	<6 mph	0.81 (0.66, 0.97)	Slow (<6 mph)	0.51 (0.24, 1.10)	Lower perceived intensity (<6 mph)	1.02 (0.59, 1.78)
	6-6.6 mph	0.71 (0.56, 0.87)	Average (6-7 mph)	0.38 (0.22, 0.66)	Higher perceived intensity (≥6 mph)	0.84 (0.64, 1.10)
	6.7-7 mph	0.67 (0.47, 0.87)				
	7.1-7.5 mph	0.63 (0.46, 0.80)	Fast (>7 mph)	0.94 (0.40, 2.18)		
	≥7.6 mph	0.65 (0.43, 0.88)				
Total volume	<506 MET-min/week	0.67 (0.55, 0.81)	"Light" runners, <1800 MET-min/week	0.22 (0.10, 0.47)		
	506-812 MET-min/week	0.71 (0.59, 0.85)			506-812 MET-min/week	0.61 (0.32, 1.17)
	813-1199 MET-min/week	0.72 (0.60, 0.87)			813-1199 MET-min/week	0.82 (0.34, 1.98)
	1200-1839 MET-min/week	0.66 (0.54, 0.80)			1200-1839 MET-min/week	1.14 (0.57, 2.28)
	1840-2249 MET-min/week	0.70 (0.49, 0.99)	"Moderate" runners, 1800 - 2880 MET-min/week	0.66 (0.32, 1.38)	1840-2249 MET-min/week	0.40 (0.06, 2.83)
	2250-2943 MET-min/week	0.67 (0.46, 0.96)			2250-2943 MET-min/week	0.60 (0.08, 4.23)
	≥2944 MET-min/week	0.88 (0.65, 1.19)	"Strenuous" runners, >2880 MET-min/week	1.97 (0.48, 8.14)	≥2944 MET-min/week	1.24 (0.46, 3.30)

Lee et al (2016) = reference number 30