Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Fixed, 95% CI	Year
4.4.1 healthy population									
Duthie 2006	0.24	0.37	11	−0.01	0.35	9	3.5%	0.25 [−0.07, 0.57]	2006
Novotny 2015	−0.13	0.47	29	−0.03	0.5	27	5.4%	−0.10 [−0.35, 0.15]	2015
Flanagan 2022	0.1	0.4	29	−0.1	0.56	31	5.8%	0.20 [−0.05, 0.45]	2022
Heiss 2022	0.13	0.46	22	−0.07	0.46	22	4.7%	0.20 [−0.07, 0.47]	2022
Rahn 2023	0.09	0.56	18	0.24	0.42	18	3.3%	−0.15 [−0.47, 0.17]	2023
Subtotal (95% CI)			**109**			**107**	**22.8%**	**0.09 [−0.04, 0.21]**	
Heterogeneity: $Chi^2 = 6.63$, df = 4 (P = 0.16); $I^2 = 40\%$									
Test for overall effect: Z = 1.35 (P = 0.18)									
4.4.2 population with metabolic diseases									
Lee 2008	−0.1	0.77	15	0	0.39	15	1.8%	−0.10 [−0.54, 0.34]	2008
Basu 2011	0.07	0.16	15	−0.04	0.11	16	37.0%	0.11 [0.01, 0.21]	2011
Javid 2017	−0.24	1.01	9	−0.25	0.39	12	0.7%	0.01 [−0.69, 0.71]	2017
Paquette 2017	−0.21	1.01	20	−0.17	1.06	21	0.9%	−0.04 [−0.67, 0.59]	2017
Hormoznejad 2020	−0.17	0.39	20	−0.55	1.37	21	0.9%	0.38 [−0.23, 0.99]	2020
Hsia 2020	−0.16	0.42	18	0.1	0.37	17	5.1%	−0.26 [−0.52, 0.00]	2020
Richter 2021	−0.01	0.43	40	0.06	0.47	40	9.0%	−0.07 [−0.27, 0.13]	2021
Shirazi 2021	−0.09	0.74	46	0.08	0.71	48	4.1%	−0.17 [−0.46, 0.12]	2021
Subtotal (95% CI)			**183**			**190**	**59.5%**	**0.03 [−0.05, 0.10]**	
Heterogeneity: $Chi^2 = 11.72$, df = 7 (P = 0.11); $I^2 = 40\%$									
Test for overall effect: Z = 0.67 (P = 0.50)									
4.4.3 population with coronary artery disease or CVD risk									
Dohadwala 2011	−0.02	0.61	22	0.01	0.69	22	2.4%	−0.03 [−0.41, 0.35]	2011
Flammer 2013	0.07	0.31	32	−0.1	0.33	37	15.3%	0.17 [0.02, 0.32]	2013
Subtotal (95% CI)			**54**			**59**	**17.7%**	**0.14 [0.00, 0.28]**	
Heterogeneity: $Chi^2 = 0.90$, df = 1 (P = 0.34); $I^2 = 0\%$									
Test for overall effect: Z = 2.00 (P = 0.05)									
Total (95% CI)			**346**			**356**	**100.0%**	**0.06 [0.00, 0.12]**	
Heterogeneity: $Chi^2 = 21.50$, df = 14 (P = 0.09); $I^2 = 35\%$									
Test for overall effect: Z = 2.00 (P = 0.05)									
Test for subgroup differences: $Chi^2 = 2.25$, df = 2 (P = 0.33), $I^2 = 10.9\%$									