

Table 3. MR Estimates for the Effect of MS risk on Anthropometric Measures (Bidirectional Analysis)

Outcome	No. of SNPs	IVW			MR-Egger		Weighted median		pleiotropy assessment				
		β (95%CI)	pval	FDR	β (95%CI)	pval	β (95%CI)	pval	Q	Q pval	I^2 (%)	MR-Egger intercept	MR-Egger Intercept pval
Whole body fat percentage	97	-0.0027(-0.0106,-0.0106)	4.99E-01	5.82E-01	0.0013(-0.0219,-0.0219)	9.15E-01	-0.0045(-0.0116,-0.0116)	2.13E-01	362.819	6.23E-33	73.8	-0.0004	0.721
Arm fat percentage (left)	97	-0.0052(-0.013,-0.013)	1.91E-01	3.67E-01	7e-04(-0.0221,-0.0221)	9.52E-01	-0.0126(-0.0197,-0.0197)	4.84E-04	350.816	5.33E-31	72.9	-0.0006	0.593
Arm fat percentage (right)	97	-0.0043(-0.0121,-0.0121)	2.80E-01	4.20E-01	0.0037(-0.0192,-0.0192)	7.52E-01	-0.0107(-0.0178,-0.0178)	2.98E-03	351.458	4.21E-31	73	-0.0009	0.468
Leg fat percentage (left)	97	-0.0021(-0.0087,-0.0087)	5.26E-01	5.82E-01	-0.0026(-0.0221,-0.0221)	7.93E-01	-0.0053(-0.0111,-0.0111)	7.05E-02	386.698	7.72E-37	75.4	0.0001	0.96
Leg fat percentage (right)	97	-0.0016(-0.0083,-0.0083)	6.38E-01	6.69E-01	-0.0025(-0.0221,-0.0221)	8.03E-01	-0.0041(-0.0097,-0.0097)	1.54E-01	382.452	3.87E-36	75.2	0.0001	0.924
Trunk fat percentage	97	-0.003(-0.0122,-0.0122)	5.26E-01	5.82E-01	0.0055(-0.0216,-0.0216)	6.91E-01	-0.0077(-0.0163,-0.0163)	8.15E-02	342.521	1.12E-29	72.3	-0.0009	0.515
Whole body fat mass	97	-0.0061(-0.0156,-0.0156)	2.10E-01	3.67E-01	0.0049(-0.023,-0.023)	7.31E-01	-0.0075(-0.0161,-0.0161)	8.52E-02	315.268	2.02E-25	69.9	-0.0012	0.414
Arm fat mass (left)	97	-0.0078(-0.0171,-0.0171)	9.99E-02	3.67E-01	0.0042(-0.023,-0.023)	7.63E-01	-0.0111(-0.0203,-0.0203)	1.77E-02	293.994	3.37E-22	67.7	-0.0013	0.361
Arm fat mass (right)	97	-0.0071(-0.0163,-0.0163)	1.34E-01	3.67E-01	0.0063(-0.0208,-0.0208)	6.47E-01	-0.0068(-0.0156,-0.0156)	1.30E-01	291.345	8.35E-22	67.4	-0.0014	0.304
Leg fat mass (left)	97	-0.0041(-0.012,-0.012)	3.05E-01	4.26E-01	0.0012(-0.022,-0.022)	9.22E-01	-0.0074(-0.0146,-0.0146)	4.35E-02	330.645	8.32E-28	71.3	-0.0006	0.635
Leg fat mass (right)	97	-0.0036(-0.0115,-0.0115)	3.67E-01	4.82E-01	0.0012(-0.022,-0.022)	9.20E-01	-0.0075(-0.0146,-0.0146)	3.94E-02	322.935	1.32E-26	70.6	-0.0005	0.666
Trunk fat mass	97	-0.0059(-0.0157,-0.0157)	2.40E-01	3.87E-01	0.0063(-0.0225,-0.0225)	6.67E-01	-0.0032(-0.0121,-0.0121)	4.77E-01	317.838	8.13E-26	70.1	-0.0013	0.378
BMI	97	-0.0072(-0.0171,-0.0171)	1.57E-01	3.67E-01	0.0045(-0.0246,-0.0246)	7.63E-01	-0.0086(-0.0177,-0.0177)	6.33E-02	333.353	3.13E-28	71.5	-0.0013	0.406
Weight	97	-0.0074(-0.0168,-0.0168)	1.27E-01	3.67E-01	0.0083(-0.0193,-0.0193)	5.56E-01	-0.0032(-0.0112,-0.0112)	4.24E-01	381.51	5.54E-36	75.1	-0.0017	0.239
Height	97	-0.0021(-0.0155,-0.0155)	7.59E-01	7.59E-01	0.0089(-0.0307,-0.0307)	6.62E-01	-2e-04(-0.0068,-0.0068)	9.58E-01	1225.761	7.96E-196	92.2	-0.0012	0.565
Whole body non-fat mass	97	-0.0066(-0.0152,-0.0152)	1.34E-01	3.67E-01	0.0045(-0.0208,-0.0208)	7.28E-01	-0.0069(-0.0127,-0.0127)	1.91E-02	630.768	5.25E-80	84.9	-0.0012	0.363
Arm non-fat mass (left)	97	-0.0055(-0.0138,-0.0138)	1.97E-01	3.67E-01	0.0038(-0.0206,-0.0206)	7.60E-01	-0.004(-0.0099,-0.0099)	1.90E-01	571.337	4.31E-69	83.4	-0.001	0.429
Arm non-fat mass (right)	97	-0.0064(-0.0146,-0.0146)	1.27E-01	3.67E-01	0.0014(-0.0226,-0.0226)	9.08E-01	-0.0083(-0.0139,-0.0139)	3.43E-03	577.485	3.27E-70	83.5	-0.0008	0.501
Leg non-fat mass (left)	97	-0.0061(-0.0138,-0.0138)	1.20E-01	3.67E-01	0.0078(-0.0148,-0.0148)	4.98E-01	-0.0026(-0.0083,-0.0083)	3.69E-01	473.153	1.46E-51	79.9	-0.0015	0.2
Leg non-fat mass (right)	97	-0.0069(-0.0147,-0.0147)	8.56E-02	3.67E-01	0.0067(-0.0162,-0.0162)	5.69E-01	-0.005(-0.0109,-0.0109)	9.47E-02	491.258	9.72E-55	80.7	-0.0015	0.22
Trunk non-fat mass	97	-0.0067(-0.0159,-0.0159)	1.55E-01	3.67E-01	0.0035(-0.0234,-0.0234)	7.97E-01	-0.0067(-0.0124,-0.0124)	2.25E-02	712.497	2.66E-95	86.7	-0.0011	0.431

CI: confidence interval; BMI: body mass index; IVW: inverse variance-weighted (multiplicative random effects); No. of SNPs: number of single-nucleotide polymorphisms that included in the analysis; β : beta coefficient; 95% CI: confidence interval; FDR: false discovery rate; Q: cochrans Q test; Q pval: Cochran's Q test p value; I^2 (%): expresses the level of heterogeneity as a percentage; MR-Egger Intercept pval: MR-Egger Intercept p value

