

Supplemental table S1. Characteristics of sex discrimination in the rJDI12 score quartile range

Characteristics	Male					Female				
	Q1	Q2	Q3	Q4	<i>P</i>	Q1	Q2	Q3	Q4	<i>P</i>
Range of scores	0–4	5–6	7–8	9–12		0–4	5–6	7–8	9–12	
Participants, n	746	705	782	565		835	801	892	705	
Age, years	61.6 (6.9)	62.3 (6.9)	63.4 (7.0)	64.5 (6.7)	<0.001	61.1 (7.0)	62.3 (7.1)	63.5 (7.0)	64.5 (6.6)	<0.001
BMI, kg/m2	23.4 (3.0)	23.6 (3.0)	23.6 (2.8)	23.3 (2.7)	0.432	23.0 (3.5)	22.7 (3.2)	22.9 (3.2)	22.7 (3.1)	0.216
Cerebrovascular diseases, n (%)					0.461					0.069
- Yes	27 (3.6)	28 (4.0)	24 (3.1)	26 (4.6)		22 (2.6)	12 (1.5)	16 (1.8)	16 (2.3)	
- No	476 (63.8)	443 (62.8)	512 (65.5)	378 (66.9)		486 (58.2)	486 (60.7)	570 (63.9)	455 (64.5)	
- Missing	243 (32.6)	234 (33.2)	246 (31.5)	161 (28.5)		327 (39.2)	303 (37.8)	306 (34.3)	234 (33.2)	
Coronary heart diseases, n (%)					0.123					0.166
- Yes	81 (10.9)	65 (9.2)	89 (11.4)	81 (14.3)		66 (7.9)	61 (7.6)	80 (9.0)	56 (7.9)	
- No	422 (56.6)	406 (57.6)	447 (57.2)	323 (57.2)		442 (52.9)	437 (54.6)	506 (56.7)	415 (58.9)	
- Missing	243 (32.6)	234 (33.2)	246 (31.5)	161 (28.5)		327 (39.2)	303 (37.8)	306 (34.3)	234 (33.2)	
Diabetes, n (%)					0.032					0.004
- Yes	74 (9.9)	101 (14.3)	104 (13.3)	89 (15.8)		69 (8.3)	61 (7.6)	56 (6.3)	36 (5.1)	
- No	429 (57.5)	370 (52.5)	432 (55.2)	315 (55.8)		440 (52.7)	437 (54.6)	530 (59.4)	435 (61.7)	
- Missing	243 (32.6)	234 (33.2)	246 (31.5)	161 (28.5)		326 (39.0)	303 (37.8)	306 (34.3)	234 (33.2)	
Cancer, n (%)					0.488					0.166
- Yes	27 (3.6)	29 (4.1)	36 (4.6)	30 (5.3)		38 (4.6)	39 (4.9)	44 (4.9)	30 (4.3)	
- No	476 (63.8)	442 (62.7)	500 (63.9)	374 (66.2)		470 (56.3)	459 (57.3)	542 (60.8)	441 (62.6)	

- Missing	243 (32.6)	234 (33.2)	246 (31.5)	161 (28.5)		327 (39.2)	303 (37.8)	306 (34.3)	234 (33.2)	
Smoking status, n (%)					<0.001					<0.001
- Current	288 (38.6)	253 (35.9)	206 (26.3)	151 (26.7)		110 (13.2)	88 (11.0)	67 (7.5)	35 (5.0)	
- Former	297 (39.8)	282 (40.0)	381 (48.7)	279 (49.4)		79 (9.5)	61 (7.6)	58 (6.5)	37 (5.2)	
- Never	143 (19.2)	152 (21.6)	178 (22.8)	122 (21.6)		620 (74.3)	632 (78.9)	744 (83.4)	616 (87.4)	
- Missing	18 (2.4)	18 (2.6)	17 (2.2)	13 (2.3)		26 (3.1)	20 (2.5)	23 (2.6)	17 (2.4)	
Alcohol consumption, n (%)					0.213					0.735
- Every day	271 (36.3)	271 (38.4)	305 (39.0)	186 (32.9)		75 (9.0)	63 (7.9)	79 (8.9)	46 (6.5)	
- Sometimes	274 (36.7)	264 (37.4)	279 (35.7)	245 (43.4)		264 (31.6)	249 (31.1)	285 (32.0)	231 (32.8)	
- Never	186 (24.9)	157 (22.3)	181 (23.1)	121 (21.4)		459 (55.0)	452 (56.4)	485 (54.4)	387 (54.9)	
- Missing	15 (2.0)	13 (1.8)	17 (2.2)	13 (2.3)		37 (4.4)	37 (4.6)	43 (4.8)	41 (5.8)	
Time spent walking, n (%)					<0.001					<0.001
- ≥1 h/d	263 (35.3)	286 (40.6)	357 (45.7)	262 (46.4)		308 (36.9)	332 (41.4)	396 (44.4)	331 (47.0)	
- 0.5-1 h/d	258 (34.6)	253 (35.9)	263 (33.6)	193 (34.2)		310 (37.1)	305 (38.1)	338 (37.9)	250 (35.5)	
- <0.5 h/d	198 (26.5)	151 (21.4)	141 (18.0)	99 (17.5)		199 (23.8)	155 (19.4)	149 (16.7)	113 (16.0)	
- Missing	27 (3.6)	15 (2.1)	21 (2.7)	11 (1.9)		18 (2.2)	9 (1.1)	9 (1.0)	11 (1.6)	
TMIG-IC score, points	5 (5–5)	5 (5–5)	5 (5–5)	5 (5–5)	0.164	5 (5–5)	5 (5–5)	5 (5–5)	5 (5–5)	0.036
Energy, kcal/d	1584.3 (481.8)	1942.3 (498.5)	2226.2 (556.7)	2615.9 (647.8)	<0.001	1314.3 (374.9)	1633.8 (400.7)	1867.6 (456.6)	2243.3 (571.2)	<0.001

Data are expressed as numbers (percentage) or mean (SD) or median (IQR: 25%, 75%) unless otherwise indicated.

rJDI12, 12-component revised Japanese Diet Index; BMI, body mass index; TMIG, Tokyo Metropolitan Institute of Gerontology Index of Competence.

Supplemental table S2. Characteristics of sex discrimination in the aMed score quartile range

Characteristics	Male					Female				
	Q1	Q2	Q3	Q4	<i>P</i>	Q1	Q2	Q3	Q4	<i>P</i>
Range of scores	0–3	4	5	6–8		0–3	4	5	6–8	
Participants, n	1,151	694	583	370		1,555	744	620	314	
Age, years	61.7 (6.9)	63.4 (7.0)	63.6 (6.9)	64.3 (6.6)	<0.001	61.6 (7.1)	63.5 (6.9)	63.7 (6.7)	65.3 (6.5)	<0.001
BMI, kg/m2	23.3 (3.0)	23.6 (2.8)	23.7 (3.0)	23.4 (2.7)	0.073	22.8 (3.3)	22.8 (3.3)	22.8 (3.2)	23.1 (3.1)	0.498
Cerebrovascular diseases, n (%)					0.153					0.141
- Yes	40 (3.5)	23 (3.3)	27 (4.6)	15 (4.1)		25 (1.6)	19 (2.6)	14 (2.3)	8 (2.5)	
- No	718 (62.4)	452 (65.1)	385 (66.0)	254 (68.6)		933 (60.0)	461 (62.0)	399 (64.4)	204 (65.0)	
- Missing	393 (34.1)	219 (31.6)	171 (29.3)	101 (27.3)		597 (38.4)	264 (35.5)	207 (33.4)	102 (32.5)	
Coronary heart diseases, n (%)					0.003					0.068
- Yes	98 (8.5)	88 (12.7)	80 (13.7)	50 (13.5)		114 (7.3)	59 (7.9)	54 (8.7)	36 (11.5)	
- No	660 (57.3)	387 (55.8)	332 (56.9)	219 (59.2)		844 (54.3)	421 (56.6)	359 (57.9)	176 (56.1)	
- Missing	393 (34.1)	219 (31.6)	171 (29.3)	101 (27.3)		597 (38.4)	264 (35.5)	207 (33.4)	102 (32.5)	
Diabetes, n (%)					0.014					0.157
- Yes	123 (10.7)	104 (15.0)	82 (14.1)	59 (15.9)		98 (6.3)	59 (7.9)	45 (7.3)	20 (6.4)	
- No	635 (55.2)	371 (53.5)	330 (56.6)	210 (56.8)		860 (55.3)	422 (56.7)	368 (59.4)	192 (61.1)	
- Missing	393 (34.1)	219 (31.6)	171 (29.3)	101 (27.3)		597 (38.4)	263 (35.3)	207 (33.4)	102 (32.5)	
Cancer, n (%)					0.169					0.036
- Yes	47 (4.1)	27 (3.9)	28 (4.8)	20 (5.4)		75 (4.8)	26 (3.5)	38 (6.1)	12 (3.8)	
- No	711 (61.8)	448 (64.6)	384 (65.9)	249 (67.3)		883 (56.8)	454 (61.0)	375 (60.5)	200 (63.7)	

- Missing	393 (34.1)	219 (31.6)	171 (29.3)	101 (27.3)		597 (38.4)	264 (35.5)	207 (33.4)	102 (32.5)	
Smoking status, n (%)					<0.001					<0.001
- Current	432 (37.5)	213 (30.7)	163 (28.0)	90 (24.3)		165 (10.6)	69 (9.3)	54 (8.7)	12 (3.8)	
- Former	484 (42.1)	308 (44.4)	268 (46.0)	179 (48.4)		136 (8.7)	52 (7.0)	31 (5.0)	16 (5.1)	
- Never	208 (18.1)	156 (22.5)	137 (23.5)	94 (25.4)		1,214 (78.1)	600 (80.6)	525 (84.7)	273 (86.9)	
- Missing	27 (2.3)	17 (2.4)	15 (2.6)	7 (1.9)		40 (2.6)	23 (3.1)	10 (1.6)	13 (4.1)	
Alcohol consumption, n (%)					<0.001					0.433
- Every day	430 (37.4)	263 (37.9)	198 (34.0)	142 (38.4)		128 (8.2)	68 (9.1)	40 (6.5)	27 (8.6)	
- Sometimes	389 (33.8)	269 (38.8)	244 (41.9)	160 (43.2)		502 (32.3)	220 (29.6)	205 (33.1)	102 (32.5)	
- Never	313 (27.2)	147 (21.2)	124 (21.3)	61 (16.5)		853 (54.9)	422 (56.7)	345 (55.6)	163 (51.9)	
- Missing	19 (1.7)	15 (2.2)	17 (2.9)	7 (1.9)		72 (4.6)	34 (4.6)	30 (4.8)	22 (7.0)	
Time spent walking, n (%)					0.130					0.554
- ≥1 h/d	444 (38.6)	297 (42.8)	254 (43.6)	173 (46.8)		635 (40.8)	323 (43.4)	267 (43.1)	142 (45.2)	
- 0.5-1 h/d	416 (36.1)	239 (34.4)	200 (34.3)	112 (30.3)		590 (37.9)	266 (35.8)	239 (38.5)	108 (34.4)	
- <0.5 h/d	257 (22.3)	144 (20.7)	110 (18.9)	78 (21.1)		307 (19.7)	143 (19.2)	109 (17.6)	57 (18.2)	
- Missing	34 (3.0)	14 (2.0)	19 (3.3)	7 (1.9)		23 (1.5)	12 (1.6)	5 (0.8)	7 (2.2)	
TMIG-IC score, points	5 (5–5)	5 (5–5)	5 (5–5)	5 (5–5)	0.035	5 (5–5)	5 (5–5)	5 (5–5)	5 (5–5)	0.064
Energy, kcal/d	2042.5 (672.2)	2058.9 (686.9)	2065.1 (612.0)	2125.5 (604.7)	0.211	1702.6 (552.1)	1754.4 (563.5)	1820.9 (563.7)	1821.1 (564.3)	<0.001

Data are expressed as numbers (percentage) or mean (SD) or median (IQR: 25%, 75%) unless otherwise indicated.

aMed, Alternate Mediterranean Diet; BMI, body mass index; rJDI12, 12-component revised Japanese Diet Index; TMIG, Tokyo Metropolitan Institute of Gerontology Index of Competence.

Supplemental table S3. Comparison of two dietary patterns and nutrient intakes

Nutrient intakes	Group of rJDI12					Group of aMed				
	Q1	Q2	Q3	Q4	<i>P</i>	Q1	Q2	Q3	Q4	<i>P</i>
Protein, g/d	61.3 (6.9)	62.3 (7.0)	63.4 (7.0)	64.5 (6.6)	<0.001	68.1 (28.1)	74.4 (30.5)	77.9 (28.8)	81.8 (6.6)	<0.001
Fiber, g/d	8.4 (2.9)	11.9 (3.3)	15.5 (4.5)	19.9 (5.5)	<0.001	11.7 (5.0)	14.2 (5.9)	15.7 (5.8)	16.8 (6.1)	<0.001
Vitamin A, µgRAE/d	513 (468)	685 (389)	915 (604)	1152 (702)	<0.001	701 (537)	834 (617)	904 (645)	952 (615)	<0.001
Vitamin C, mg/d	78 (39)	116 (47)	155 (57)	203 (67)	<0.001	111 (61)	144 (70)	158 (68)	172 (70)	<0.001
Vitamin E, mg/d	5.43 (2.03)	7.30 (2.29)	9.21 (3.00)	11.7 (3.66)	<0.001	7.27 (3.18)	8.52 (3.59)	9.29 (3.61)	9.87 (3.70)	<0.001
Calcium, mg/d	378 (169)	524 (181)	678 (232)	872 (282)	<0.001	541 (258)	619 (290)	657 (279)	710 (297)	<0.001
Iron, mg/d	5.6 (1.9)	7.7 (1.9)	9.7 (2.6)	12.3 (3.3)	<0.001	7.7 (3.2)	9.0 (3.5)	9.7 (3.4)	10.2 (3.5)	<0.001
Potassium, mg/d	1,770 (594)	2,438 (653)	3,139 (875)	3,993 (1,066)	<0.001	2,462 (1020)	2,889 (1172)	3,097 (1117)	3,290 (1,155)	<0.001
Magnesium, mg/d	183 (56)	248 (58)	313 (79)	396 (100)	<0.001	249 (96)	288 (107)	310 (104)	334 (110)	<0.001
Saturated fat, g/d	10.2 (4.6)	12.5 (4.8)	14.6 (5.5)	17.1 (6.3)	<0.001	14.0 (6.2)	13.3 (6.0)	12.9 (5.2)	12.3 (5.0)	<0.001
Sodium, mg/d	3,449 (1,001)	4,318 (1,045)	5,111 (1,225)	6,192 (1,561)	<0.001	4,322 (1,440)	4,793 (1,560)	5,077 (1,542)	5,378 (1,617)	<0.001
Sugar, g/d	10.3 (8.6)	12.0 (9.5)	12.8 (9.5)	15.2 (11.1)	<0.001	14.2 (10.5)	11.9 (9.6)	10.8 (8.4)	9.4 (7.9)	<0.001

Data are expressed as mean (SD).

rJDI12, 12-component revised Japanese Diet Index; aMed, Alternate Mediterranean Diet

Supplemental table S4. Relationship between the constituent nutrients of rJDI12 and muscle weakness

	Group of rJDI12				<i>P</i> for trend
	Q1	Q2	Q3	Q4	
Protein	1.000 (reference)	0.879 (0.684–1.130)	0.805 (0.614–1.055)	0.738 (0.533–1.023)	0.058
Fiber	1.000 (reference)	0.907 (0.703–1.170)	0.861 (0.644–1.150)	0.820 (0.570–1.178)	0.265
Vitamin A	1.000 (reference)	0.849 (0.664–1.085)	0.740 (0.576–0.951)	0.647 (0.489–0.855)	0.001
Vitamin C	1.000 (reference)	0.880 (0.684–1.133)	0.807 (0.612–1.064)	0.740 (0.529–1.034)	0.067
Vitamin E	1.000 (reference)	0.860 (0.669–1.105)	0.767 (0.584–1.009)	0.683 (0.490–0.952)	0.019
Calcium	1.000 (reference)	0.855 (0.666–1.098)	0.758 (0.577–0.995)	0.669 (0.481–0.932)	0.014
Iron	1.000 (reference)	0.884 (0.685–1.142)	0.815 (0.611–1.087)	0.752 (0.524–1.078)	0.108
Potassium	1.000 (reference)	0.910 (0.705–1.174)	0.867 (0.650–1.157)	0.830 (0.579–1.190)	0.292
Magnesium	1.000 (reference)	0.916 (0.708–1.184)	0.876 (0.652–1.175)	0.844 (0.581–1.226)	0.353
Saturated fat	1.000 (reference)	0.863 (0.674–1.105)	0.775 (0.600–1.000)	0.694 (0.519–0.928)	0.010
Sodium	1.000 (reference)	0.863 (0.670–1.112)	0.775 (0.588–1.021)	0.694 (0.494–0.974)	0.028
Sugar	1.000 (reference)	0.866 (0.678–1.106)	0.779 (0.610–0.995)	0.700 (0.535–0.915)	0.006

Odds ratios adjusted for age (50–54, 55–59, 60–64, 65–69, or ≥70 y), sex, BMI (<18.5, 18.5–25, ≥25 kg/m², or missing), IADL score (TMIG-IC score), time spent walking (≥1, 0.5–1, <0.5 h/d, or missing), alcohol consumption (every day, sometimes, never, or missing), smoking status (current, former, never, or missing), history of diseases (cerebrovascular diseases, coronary heart diseases, diabetes, cancer [yes, no, or missing for each term]).

rJDI 12, 12-component revised Japanese Diet Index

Supplemental table S5. Relationship between the constituent nutrients of aMed and muscle weakness

	Group of aMed				<i>P</i> for trend
	Q1	Q2	Q3	Q4	
Protein	1.000 (reference)	0.881 (0.701–1.105)	0.751 (0.583–0.966)	1.059 (0.799–1.403)	0.436
Fiber	1.000 (reference)	0.909 (0.722–1.144)	0.795 (0.614–1.030)	1.131 (0.846–1.511)	0.852
Vitamin A	1.000 (reference)	0.857 (0.683–1.076)	0.723 (0.561–0.930)	1.005 (0.759–1.331)	0.238
Vitamin C	1.000 (reference)	0.897 (0.713–1.129)	0.776 (0.599–1.005)	1.100 (0.823–1.470)	0.681
Vitamin E	1.000 (reference)	0.883 (0.702–1.110)	0.758 (0.586–0.979)	1.066 (0.800–1.420)	0.501
Calcium	1.000 (reference)	0.876 (0.698–1.101)	0.747 (0.580–0.963)	1.053 (0.793–1.397)	0.412
Iron	1.000 (reference)	0.895 (0.711–1.125)	0.771 (0.597–0.996)	1.092 (0.820–1.454)	0.625
Potassium	1.000 (reference)	0.903 (0.718–1.135)	0.783 (0.606–1.011)	1.113 (0.836–1.482)	0.735
Magnesium	1.000 (reference)	0.904 (0.719–1.136)	0.785 (0.608–1.014)	1.124 (0.843–1.499)	0.775
Saturated fat	1.000 (reference)	0.860 (0.686–1.079)	0.724 (0.563–0.932)	1.005 (0.759–1.330)	0.235
Sodium	1.000 (reference)	0.881 (0.701–1.107)	0.754 (0.585–0.972)	1.063 (0.800–1.413)	0.469
Sugar	1.000 (reference)	0.859 (0.685–1.079)	0.726 (0.564–0.934)	1.008 (0.760–1.336)	0.250

Odds ratios adjusted for age (50–54, 55–59, 60–64, 65–69, or ≥70 y), sex, BMI (<18.5, 18.5–25, ≥25 kg/m², or missing), IADL score (TMIG-IC score), time spent walking (≥1, 0.5–1, <0.5 h/d, or missing), alcohol consumption (every day, sometimes, never, or missing), smoking status (current, former, never, or missing), history of diseases (cerebrovascular diseases, coronary heart diseases, diabetes, cancer [yes, no, or missing for each term]).

aMed, Alternate Mediterranean Diet

Supplemental table S6. Relationship between the combination of adherence to two dietary patterns and muscle weakness

	Adjusted odds ratio	95% confidence interval	<i>P</i>
Model 1			
Both low scores	1.000 (reference)		
High rJDI12 and low aMed score	0.783	0.625–0.982	0.034
Low rJDI12 and high aMed score	0.898	0.650–1.242	0.516
Both high scores	0.703	0.507–0.974	0.021
Model 2			
Low rJDI12 and high aMed score	1.000 (reference)		
High rJDI12 and low aMed score	0.872	0.617–1.232	0.437
Both high scores	0.845	0.595–1.199	0.345
Both low scores	1.113	0.805–1.540	0.516

Adjusted for age (50–54, 55–59, 60–64, 65–69, or ≥70 y) and sex, BMI (<18.5, 18.5–25, ≥25 kg/m2, or missing), IADL score (TMIG-IC score), time spent walking (≥1, 0.5-1, <0.5 h/d, or missing), alcohol consumption (every day, sometimes, never, or missing), smoking status (current, former, never, or missing), history of diseases (cerebrovascular disease, coronary heart disease, diabetes, cancer [yes, no, or missing for each term]).

rJDI12, 12-component revised Japanese Diet Index; aMed, Alternate Mediterranean Diet.