

Supplementary Table SII Effect of modification of BMI on the relation between the Mediterranean and the Western patterns and semen quality parameters in Murcia Young Men's Study (total $n = 209$; lean men $n = 141$; overweight or obese men $n = 68$) by quartiles (Q1–4) of consumption of the two dietary patterns.

Adjusted ^a means (95% CI)	Mediterranean pattern					Western pattern				
	Q1 (n = 53)	Q2 (n = 51)	Q3 (n = 53)	Q4 (n = 52)	P, trend	Q1 (n = 52)	Q2 (n = 53)	Q3 (n = 52)	Q4 (n = 52)	P, trend
Semen volume (ml)	P, interaction = 0.96					P, interaction = 0.93				
Lean men (BMI <25 kg/m ²)	2.81 (2.31, 3.42)	2.60 (2.11, 3.19)	3.19 (2.65, 3.83)	3.16 (2.56, 3.90)	0.29	3.09 (2.46, 3.87)	2.58 (2.11, 3.16)	3.46 (2.86, 4.18)	2.71 (2.14, 3.43)	0.75
Overweight or obese men (BMI ≥25 kg/m ²)	2.02 (1.40, 2.92)	2.34 (1.70, 3.22)	3.43 (2.32, 5.06)	2.57 (1.78, 3.73)	0.28	3.04 (2.09, 4.42)	2.17 (1.55, 3.03)	2.23 (1.54, 3.24)	2.65 (1.69, 4.15)	0.85
Sperm concentration (mill/ml)	P, interaction = 0.55					P, interaction = 0.014				
Lean men (BMI <25 kg/m ²)	39.9 (29.5, 54.2)	39.4 (28.6, 54.4)	31.1 (23.4, 41.5)	48.3 (35.0, 66.6)	0.46	37.0 (26.1, 52.6)	41.1 (29.8, 56.5)	31.2 (23.2, 42.1)	48.2 (33.2, 70.0)	0.49
Overweight or obese men (BMI ≥25 kg/m ²)	27.7 (15.9, 48.1)	27.4 (17.0, 44.1)	48.9 (27.2, 87.7)	40.8 (23.3, 71.3)	0.20	42.2 (25.0, 71.2)	32.4 (20.4, 51.6)	53.5 (31.7, 89.6)	15.9 (8.52, 29.7)*	0.04
Total sperm count (mill)	P, interaction = 0.73					P, interaction = 0.15				
Lean men (BMI <25 kg/m ²)	111 (84.5, 146)	121 (90.3, 163)	99.9 (77.2, 129)	152 (113, 75.1)	0.18	112 (81.6, 156)	106 (79.0, 141)	126 (96.1, 167)	129 (92.3, 181.5)	0.51
Overweight or obese men (BMI ≥25 kg/m ²)	62.1 (35.9, 107)	83.2 (51.4, 134)	147 (81.0, 266)	113 (61.2, 199)	0.11	144 (83.7, 246)	75.3 (46.7, 122)	117 (68.3, 201)	50.9 (26.4, 98.1)	0.05
Morphologically normal sperm (%)	P, interaction = 0.97					P, interaction = 0.12				
Lean men (BMI <25 kg/m ²)	9.16 (7.31, 11.5)	9.78 (7.68, 12.4)	8.61 (6.97, 10.6)	7.71 (6.07, 9.77)	0.23	6.31 (4.92, 8.10)	9.13 (7.28, 11.5)	8.81 (7.12, 10.9)	11.3 (8.65, 14.9)*	0.01
Overweight or obese men (BMI ≥25 kg/m ²)	9.34 (6.83, 12.8)	9.28 (7.11, 12.1)	6.29 (4.50, 8.78)	9.94 (7.27, 13.6)	0.99	8.22 (6.00, 11.3)	7.11 (5.39, 9.37)	10.6 (7.81, 14.5)	10.1 (6.93, 14.5)	0.37
Total motile sperm (progressive + non-progressive; WHO grades A–C) (%)	P, interaction = 0.13					P, interaction = 0.28				
Lean men (BMI <25 kg/m ²)	58.4 (55.0, 61.9)	56.7 (52.9, 60.5)	56.7 (53.5, 60.0)	55.2 (51.5, 58.8)	0.25	55.8 (51.8, 59.7)	57.2 (53.6, 60.8)	56.9 (53.5, 60.2)	57.3 (53.1, 61.6)	0.68
Overweight or obese men (BMI ≥25 kg/m ²)	50.4 (44.5, 56.3)	60.9 (55.7, 66.1)	57.9 (51.5, 64.3)	59.0 (52.9, 65.1)	0.20	61.9 (55.8, 68.1)	58.3 (52.8, 63.7)	52.5 (46.3, 58.7)	55.3 (47.8, 62.8)	0.27

Models for sperm motility are further adjusted for time to start semen analysis (minutes).

^aAdjusted for total calorie intake (kcal/day), BMI (kg/m²), smoking (current smoker versus not current smoker) and ejaculation abstinence time (hours).

*LSD *post hoc* analyses $P < 0.05$, (Q1 = reference category).