

Supplemental Table 1. The factor loadings of the 3 major principal component factors of fatty acids in postmenopausal women from the Women's Health Initiative – Observational Study (WHI-OS) (*n* = 93,676)

Fatty acid	Factor 1: SMSFA	Factor 2: Plant source FA	Factor 3: Marine source FA
Butyric acid (4:0)	0.94	0.15	0.05
Hexanoic acid (6:0)	0.94	0.11	0.03
Octanoic acid (8:0)	0.94	0.15	0.04
Decanoic acid (10:0)	0.96	0.15	0.05
Lauric acid (12:0)	0.85	0.22	0.03
Myristic acid (14:0)	0.94	0.25	0.12
Palmitic acid (16:0)	0.81	0.21	0.21
Margaric acid (17:0)	0.81	0.08	0.08
Stearic acid (18:0)	0.80	0.48	0.19
Arachidic acid (20:0)	0.33	0.86	0.08
Behenic acid (22:0)	0.05	0.81	-0.04
Myristoleic acid (14:1)	0.64	0.34	0.12
Palmitoleic acid (16:1)	0.74	0.44	0.32
Oleic acid (18:1)	0.64	0.68	0.22
Gadoleic acid (20:1)	0.35	0.85	0.27
Erucic acid (22:1)	0.11	0.48	0.50
Linoleic acid (18:2)	0.49	0.74	0.22
Linolenic acid (18:3)	0.48	0.65	0.27
Parinaric acid (18:4)	0.08	0.09	0.60
Arachidonic acid (20:4)	0.38	0.33	0.62
EPA (20:5)	0.04	0.05	0.95
DPA (22:5)	0.06	0.09	0.95
DHA (22:6)	0.01	0.06	0.93

Three factors explained 85.6% of total variance. Boldface shows factors loadings ≥ 0.85 . DHA: docosahexaenoic acid; DPA: docosapentaenoic acid; EPA: eicosapentaenoic acid; FA: fatty acid; SMSFA: short-to-medium chain saturated fatty acids.

Supplemental Table 2. Peripheral leukocyte telomere length according to quartiles of individual dietary unsaturated fatty acids intake in a subsample of postmenopausal women from the Women's Health Initiative¹

	Dietary unsaturated FA intake				<i>P</i> -trend ²
	Quartile 1	Quartile 2	Quartile 3	Quartile 4	
Myristoleic acid (14:1), % of energy	0.01	0.02	0.03	0.04	
Model 1	4.07 (3.99, 4.16)	4.12 (4.03, 4.20)	4.01 (3.92, 4.09)	4.02 (3.94, 4.11)	0.19
Model 2	4.06 (3.95, 4.17)	4.14 (4.03, 4.25)	4.06 (3.95, 4.16)	4.08 (3.97, 4.19)	0.86
Palmitoleic acid (16:1), % of energy	0.29	0.43	0.54	0.70	
Model 1	4.09 (4.00, 4.17)	4.10 (4.01, 4.18)	4.02 (3.93, 4.10)	4.02 (3.93, 4.10)	0.14
Model 2	4.13 (4.02, 4.24)	4.14 (4.03, 4.25)	4.07 (3.96, 4.17)	4.02 (3.91, 4.13)	0.08
Oleic acid (18:1), % of energy	7.29	9.77	12.10	15.08	
Model 1	4.07 (3.99, 4.16)	4.00 (3.91, 4.08)	4.14 (4.06, 4.23)	4.01 (3.92, 4.09)	0.70
Model 2	4.12 (4.01, 4.24)	4.05 (3.94, 4.16)	4.18 (4.07, 4.29)	4.01 (3.90, 4.12)	0.32
Gadoleic acid (20:1), % of energy	0.05	0.07	0.10	0.14	
Model 1	4.02 (3.93, 4.10)	4.06 (3.97, 4.14)	4.06 (3.97, 4.14)	4.09 (4.00, 4.18)	0.27
Model 2	4.07 (3.95, 4.18)	4.11 (4.00, 4.22)	4.09 (3.98, 4.20)	4.08 (3.98, 4.19)	0.90
Erucic acid (22:1), % of energy	0.003	0.006	0.01	0.02	
Model 1	4.03 (3.94, 4.12)	4.07 (3.98, 4.15)	4.06 (3.98, 4.15)	4.06 (3.98, 4.15)	0.74
Model 2	4.08 (3.97, 4.19)	4.12 (4.01, 4.23)	4.09 (3.98, 4.20)	4.06 (3.96, 4.17)	0.54
Linoleic acid (18:2), % of energy	3.77	5.06	6.19	8.21	
Model 1	4.06 (3.98, 4.15)	4.05 (3.97, 4.14)	4.05 (3.97, 4.14)	4.05 (3.97, 4.14)	0.87
Model 2	4.11 (3.99, 4.22)	4.09 (3.98, 4.20)	4.10 (3.99, 4.21)	4.06 (3.95, 4.17)	0.51
Linolenic acid (18:3), % of energy	0.43	0.58	0.75	1.03	
Model 1	4.07 (3.99, 4.16)	4.07 (3.98, 4.15)	4.04 (3.95, 4.12)	4.04 (3.96, 4.13)	0.58
Model 2	4.14 (4.02, 4.25)	4.12 (4.01, 4.23)	4.07 (3.96, 4.18)	4.04 (3.93, 4.15)	0.11
Parinaric acid (18:4), % of energy	0.0001	0.0005	0.001	0.003	
Model 1	4.12 (4.04, 4.21)	3.98 (3.90, 4.07)	4.04 (3.95, 4.12)	4.07 (3.99, 4.16)	0.99
Model 2	4.12 (4.01, 4.23)	4.02 (3.92, 4.13)	4.09 (3.98, 4.20)	4.11 (4.00, 4.22)	0.67
Arachidonic acid (20:4), % of energy	0.03	0.04	0.06	0.09	
Model 1	3.97 (3.89, 4.06)	4.07 (3.99, 4.16)	4.06 (3.97, 4.14)	4.12 (4.03, 4.20)	0.038
Model 2	4.02 (3.91, 4.14)	4.12 (4.01, 4.23)	4.11 (4.00, 4.21)	4.10 (3.99, 4.21)	0.44
EPA (20:5), % of energy	0.005	0.01	0.03	0.05	
Model 1	4.04 (3.96, 4.13)	4.07 (3.99, 4.16)	4.07 (3.99, 4.16)	4.03 (3.94, 4.12)	0.70
Model 2	4.10 (3.98, 4.21)	4.14 (4.03, 4.25)	4.10 (3.99, 4.20)	4.03 (3.92, 4.14)	0.21
DPA (22:5), % of energy	0.003	0.006	0.01	0.02	
Model 1	4.06 (3.98, 4.15)	4.06 (3.97, 4.15)	4.06 (3.97, 4.14)	4.04 (3.95, 4.12)	0.65
Model 2	4.13 (4.02, 4.24)	4.12 (4.02, 4.23)	4.10 (3.99, 4.21)	4.01 (3.89, 4.12)	0.06
DHA (22:6), % of energy	0.01	0.03	0.05	0.09	
Model 1	4.03 (3.95, 4.12)	4.08 (4.00, 4.17)	4.03 (3.95, 4.12)	4.07 (3.98, 4.16)	0.74
Model 2	4.09 (3.97, 4.20)	4.14 (4.03, 4.25)	4.06 (3.96, 4.17)	4.06 (3.95, 4.17)	0.43

EPA: eicosapentaenoic acid; DPA: docosapentaenoic acid; DHA: docosahexaenoic acid; FA: fatty acid.

¹ Values for telomere length are least-square means (95% CIs). Values for each FA are median intakes of the FA according to quartiles. Model 1: adjusted for age (years, continuous). Model 2: adjusted for age (years, continuous), race/ethnicity (white, black, Hispanic, Asian/Pacific Islander), BMI (≤ 25 , >25 to 30 , >30 to 35 , >35 kg/m²), smoking (never, former, current smoker), daily alcohol intake (≤ 0.01 , >0.01 to 0.1 , >0.1 to 2 , >2 g/d), diabetes case in the primary case-control study (yes, no), physical activity (0 , >0 to 5 , >5 to 20 , >20 metabolic equivalent hours/wk), daily energy intake (kcal, continuous), daily fruits and vegetables intake (medium serving [~ 170 g], continuous), daily vitamin C intake (mg, continuous), daily vitamin E intake (IU, continuous), daily selenium intake (μ g, continuous), and daily β -carotene intake (μ g, continuous).

² *P* values for linear trend are obtained by including the median intake levels of each quartile as continuous variables in the regression models.