Only Supplementary Material

Table A : Comparison of characteristics between participants included in the present analyses and those excluded

		Participants not included, n=2697	Participants included, n=4246
		N, (% or m±SD)*	N, (% or m±SD)*
Socio-demographic factors			
Age (y)		2696, (61.8±6.1)	4246, (60.9±5.9)
Sex	Men	1700, (63.0)	3178, (74.9)
Ethnicity	White	2335, (88.7)	4037, (95.1)
	South Asian	173, (6.6)	158, (3.7)
	Black	124, (4.7)	51, (1.2)
Socio-economic position	Low	426, (16.4)	334, (7.9)
	Mid	1214, (46.7)	1763, (41.5)
	High	960, (36.9)	2149, (50.6)
Marital Status	Living alone	771, (28.6)	941, (22.2)
Health behavior factors			
Smoking habits	Never smokers	1269, (47.4)	2132, (50.2)
	Ex smokers	1129, (42.2)	1816, (42.8)
	Current smokers	279, (10.4)	298, (7.0)
Alcohol consumption	No consumption	579, (23.1)	592, (13.9)
	Moderate Intake	1413, (56.5)	2681, (63.1)
	Heavy drinker	511, (20.4)	973, (22.9)
Physical activity	Inactive	772, (30.6)	977, (23)

	Moderately Active	474, (18.8)	699, (16.5)
	Active	1281, (50.7)	2570, (60.5)
Total energy intake	(kcal/d)	1434, (2096±679)	4246, (2195±646)
Health status factors			
Type 2 diabetes	Yes	344, (12.8)	364, (8.6)
Central obesity (yes)	Yes	820, (37.5)	1186, (27.9)
Cardiovascular Diseases	Yes	313, (11.6)	352, (8.3)
Hypertension	Yes	1146, (48.6)	1528, (36.0)
HDL cholesterol	(mmol/L)	2093, (1.6±0.5)	4246, (1.6±0.4)
Use of lipid-lowering drugs	Yes	354, (13.1)	472, (11.1)
Cognitive impairment	Yes	402, (20.0)	507, (11.9)
Dietary Inflammatory Index score	(points)	1434, (0.15±1.4)	4246, (-0.02±1.3)
Recurrent Depressive Symptoms	**Yes**	179, (17.7)	265, (6.2)

Table B : characteristics of 4246 Whitehall II participants according to Dietary Inflammatory score

Characteristic at phase7		Dietary Inflammatory Score	
		r or m±SD*	*P*
Sociodemographic factors			
Age	year	-0.05	0.002
Sex	Men	-0.03 ± 1.3	0.62
	Women	-0.002 ± 1.4	
Ethnicity	White	-0.03 ± 1.3	0.01
	South Asian	0.30 ± 1.4	
	Black	-0.18 ± 1.7	
Socio-economic position	Low	0.18 ± 1.4	<.001
	Mid	0.08 ± 1.4	
	High	-0.13 ± 1.3	
Marital Status	Married	-0.05 ± 1.3	0.01
	Living alone	0.08 ± 1.4	
Health behavior factors			
Smoking habits	Never smoker	-0.05 ± 1.3	<.001
	Ex smoker	-0.08 ± 1.3	
	Current smoker	0.52 ± 1.5	
Alcohol consumption	No consumption	0.10 ± 1.4	0.01
	Moderate Intake	-0.01 ± 1.3	
	Heavy drinker	-0.11 ± 1.3	
Physical activity	Inactive	0.19 ± 1.3	<.001
	Moderately Active	0.10 ± 1.4	

	Active	-0.13 ± 1.3	
Total energy intake	kcal/d	-0.056	<.001
Health status factors			
Type 2 diabetes	No	-0.02 ± 1.3	0.41
	Yes	-0.07 ± 1.3	
Central obesity	No	-0.03 ± 1.3	0.45
	Yes	0.01 ± 1.4	
History of CAD	No	-0.01 ± 1.3	0.08
	Yes	-0.14 ± 1.4	
Hypertension	No	-0.01 ± 1.3	0.35
	Yes	-0.05 ± 1.3	
HDL cholesterol	mmol/L	-0.04	0.004
Use of lipid-lowering drugs	No	0.0001 ± 1.3	0.005
	Yes	-0.18 ± 1.3	0.24
Cognitive impairment	No	-0.03 ± 1.3	
	Yes	0.04 ± 1.4	
Plasma IL-6 levels †	Tertile 1 n=1250	-0.12 ± 1.3	0.006
	Terile 2 n=1249	0.002 ± 1.3	
	Tertile 3 n=1257	0.04 ± 1.3	
Plasma CRP levels†	Tertile 1 n= 1333	-0.13 ± 1.3	0.002
	Terile 2 n= 1332	0.02 ± 1.3	
	Tertile 3 n= 1337	0.03 ± 1.3	

* Means of dietary inflammatory index score according to characteristics of participants were compared using the Student T-test and ANOVA for categorized variables and correlation coefficients were computed for quantitative variables.

†Medians and the range for each tertile of IL-6 (in pg/mL)were 1.10 (0.23- 1.38) for Tertile 1; 1.68 (1.39-2.07) for Tertile 2 and 2.86 (2.08-25) for Tertile 3.

Medians and the range for each tertile of CRP (in mg/L) were 0.45 (0.08- 0.74) for Tertile 1; 1.11 (0.74-1.68)for Tertile 2 and 2.97 (1.69-9.98) for Tertile 3.

We excluded participants with missing values on inflammatory markers and possible cases of acute inflammation and immune activation due to current illness (defined as having CRP values>10 pg/mL)

Table C : Association between dietary inflammatory Index (DII) score and recurrent depressive symptoms over 5 years after taking into account inflammatory markers

Dietary Inflammatory Index		Men n=2848		Women n=901	
		OR (95% CI)	P	OR (95% CI)	P
Model 1					
z-score	(per 1SD of DII score)	1.11 (0.90 - 1.37)	0.33	1.65 (1.26 - 2.15)	<.001
Tertiles	Tertile 1	1 (reference)		1 (reference)	
	Tertile 2	0.98 (0.64 - 1.51)	0.93	1.70 (0.88 - 3.26)	0.11
	Tertile 3	1.08 (0.67 - 1.74)	0.76	3.03 (1.53 - 6.01)	0.002
Model 2					
z-score	(per 1SD of DII score)	1.03 (0.88 - 1.21)	0.71	1.39 (1.12 - 1.71)	0.003
Tertiles	Tertile 1	1 (reference)		1 (reference)	
	Tertile 2	0.98 (0.64 - 1.50)	0.91	1.61 (0.83 - 3.14)	0.16
	Tertile 3	0.96 (0.59 - 1.56)	0.87	2.72 (1.39 - 5.55)	0.006
Model 3					
z-score	(per 1SD of DII score)	1.06 (0.86 - 1.31)	0.60	1.53 (1.15 - 2.03)	0.003
Tertiles	Tertile 1	1 (reference)		1 (reference)	
	Tertile 2	1.02 (0.66 - 1.57)	0.94	1.51 (0.77 - 2.98)	0.24
	Tertile 3	0.98 (0.60 - 1.60)	0.94	2.60 (1.27 - 5.36)	0.009

Model 1 was adjusted for age, sex, ethnicity, total energy intake, levels of plasma IL-6 and CRP at phase 7.
Model 2 was adjusted as for model 1 and for SES, living alone, smoking, physical activity, and alcohol consumption impairment assessed at phase 7.
Model 3 was adjusted as for model 2 and cardiovascular disease, type 2 diabetes, hypertension, HDL cholesterol, use of lipid-lowering drugs, central obesity, and cognitive impairment assessed at phase 7.
DepS, depressive symptom

In these analyses, we excluded participants with missing values on inflammatory markers and possible cases of acute inflammation and immune activation due to current illness (defined as having CRP values>10 pg/mL)