S2 Supporting Information File

PLOS ONE

Low-grade inflammation is negatively associated with physical Health Related Quality of Life in healthy individuals: results from The Danish Blood Donor Study (DBDS)

S2 Table A. Missing group (n=2,515)

	Women	Men	No. of missing response*
Numbers of participants	1,413 (56.2)	1,102 (43.8)	
Age, years	37.9 (26.5; 48.4)	39.2 (30.1; 50.6)	
BMI, kg/m^2	24.4 (21.9; 28.2)	25.2 (23.4; 27.8)	1,017
Obesity, BMI≥30 kg/m^2	155 (19.2)	115 (15.0)	1,017
Current smoker	166 (22.0)	133 (18.1)	1,024
Waist circumference (cm)	85.0 (78.0; 92.0)	94.0 (88.0; 100.0)	1,985
PCS (point)	54.5 (51.4; 56.2)	55.0 (54.1; 56.2)	0
MCS (point)	51.8 (47.4; 54.8)	54.0 (52.0; 56.7)	0
CRP, mg/L	0.86 (0.27; 2.35)	0.50 (0.15; 1.26)	0
Low-grade inflammation (LGI)*	252 (17.8)	81 (7.35)	0
CRP > 5 mg/L	100 (7.1)	33 (3.0)	0
Combined oral contraception	243(17.2)	-	

S2 Table B. Excluded participants with C-reactive protein levels above 10 mg/L (n=176).

	Women	Men
Numbers of participants	135 (76.7)	41 (23.3)
Age, years	31.6 (25.5; 42.5)	43.1 (32.6; 53.9)
Body mass index (BMI), kg/m²	28.3 (25.3; 33.1)	26.9 (24.2; 30.2)
Obesity, BMI≥30 kg/m²	52 (38.5)	11 (26.8)
Current smoker	37 (27.4)	9 (22.0)
Waist circumference (cm)	91.5 (82.0; 102.0)	97.0 (89.0; 105.0)
Physical Component Score, PCS (point)	55.5 (53.2;56.8)	54.7 (51.2; 56.6)
Mental Component Score, MCS (point)	53.2 (49.0; 56.7)	54.8 (49.9; 56.7)
C-reactive protein, CRP (mg/L)	12.1 (11.0; 13.4)	11.5 (10.6; 12.9)
Combined oral contraception	83 (61.5)	-

S2 Table C. Sensitivity analysis, predictors of PCS and MCS estimated by multivariable linear regression analysis of case-complete participants with C-reactive protein level > 10 mg/L included (n=14,547).

	Women using OC (n=2,064)		Women not using OC (n=4,824)		Men (n=7,659)		Men and women not using OC (n=12,483)	
Outcome PCS	**RC**	**(95% CI)**	**RC**	**(95% CI)**	**RC**	**(95% CI)**	**RC**	**(95% CI)**
Low-grade inflammation (LGI)	-0.38	(-0.74; -0.04)	-0.68	(-1.10; -0.26)	-0.79	(-1.13; -0.45)	-0.78	(-1.17; -0.39)
BMI (kg/m^2)	-0.11	(-0.16; -0.05)	-1.13	(-0.16; -0.09)	-0.14	(-0.17; -0.10)	-1.20	(-1.43; -0.98)
Current smoker (yes/no)	-0.69	(-1.11; -0.26)	-0.69	(-0.97; -0.40)	-0.58	(-0.81; -0.36)	-0.61	(-0.79; -0.44)
Age (10 year increment)	0.13	(-0.09; 0.35)	-0.27	(-0.36; -0.18)	-0.16	(-0.23; -0.09)	-0.22	(-0.28; -0.17)
Waist (10 cm increment)	-0.40	(-0.76; -0.05)	-0.24	(-0.51; -0.03)	-0.47	(-0.67; -0.27)	-0.70	(-0.84; -0.56)
Physical activity, work (low/high)	-0.12	(-0.50; 0.26)	-0.43	(-0.70; -0.17)	-0.50	(-0.69; -0.32)	-0.49	(-0.65; -0.34)
Physical activity, leisure (low/high)	0.50	(0.17; 0.84)	0.75	(0.52; 0.99)	0.70	(0.52; 0.88)	0.73	(0.59; 0.87)
Female							-0.18	(-0.32; -0.04)
Female x LGI							-0.02	(-0.54; 0.49)
Outcome MCS	**RC**	**(95% CI)**	**RC**	**(95% CI)**	**RC**	**(95% CI)**	**RC**	**(95% CI)**
Low-grade inflammation (LGI)	0.24	(-0.40; 0.89)	-0.10	(-0.77; 0.58)	0.03	(-0.50; 0.57)	0.07	(-0.55; 0.68)
BMI (kg/m^2)	-0.06	(-0.16; 0.04)	0.04	(-0.01; 0.10)	-0.02	(-0.07; 0.03)	0.16	(-0.20; 0.52)
Current smoker (yes/no)	-1.06	(-1.84; -0.27)	-0.89	(-1.35; -0.44)	-0.82	(-1.16; -0.47)	-0.85	(-1.13; -0.57)
Age (10 year increment)	1.15	(0.74; 1.56)	1.25	(1.10; 1.40)	1.00	(0.90; 1.11)	1.10	(1.01; 1.18)
Waist (10 cm increment)	-0.34	(-0.99; 0.32)	-0.39	(-0.84; 0.04)	-0.18	(-0.21;0.15)	-0.27	(-0.50; -0.04)
Physical activity, work (low/high)	-0.09	(-0.80; 0.61)	0.47	(0.05; 0.90)	0.64	(0.34; 0.93)	0.56	(0.32; 0.80)
Physical activity, leisure (low/high)	1.02	(0.39; 1.64)	1.04	(0.67; 1.41)	1.15	(0.87; 1.42)	1.10	(0.88; 1.32)
Female							1.01	(0.79; 1.24)
Female x LGI							-0.12	(-0.94; 0.69)

S2 Table D. Diet and childbirth as predictors of PCS and MCS estimated by univariate linear regression analysis of case-complete participants (n=15,380)

	Women using OC (n=2,143)		Women not using OC (n=5,106)		Men (n=8,131)	
Outcome: PCS	**RC**	**(95% CI)**	**RC**	**(95% CI)**	**RC**	**(95% CI)**
Meat consumption (yes/no) *	-0.02	(-1.26; 1.31)	-0.84	(-1.74; 0.46)	-1.05	(-2.30; 0.20)
Fish consumption (yes/no) **	0.34	(-0.04; 0.66)	0.16	(-0.06; 0.39)	0.30	(-0.13; 0.47)
Childbirth (yes/no)	-0.31	(-0.68; 0.05)	-0.35	(-0.60; 0.12)	-	-
Outcome: MCS	**RC**	**(95% CI)**	**RC**	**(95% CI)**	**RC**	**(95% CI)**
Meat consumption (yes/no)	2.07	(-0.30; 4.44)	2.27	(-0.83; 3.70)	1.76	(-0.19; 3.70)
Fish consumption (yes/no)	0.66	(-0.10; 1.23)	0.01	(-0.35; 0.36)	0.08	(-0.18; 0.34)
Childbirth (yes/no)	0.89	(-0.21; 1.56)	1.47	(0.01; 1.85)	-	-

S2 Table E. Predictors of PCS and MCS estimated by multivariable linear regression analysis after transformation of data by power of four (MCS) and five(PCS)

	Women using OC (n=1,984)		Women not using OC (n=4,770)		Men (n=7,617)	
Outcome PCS	**RC**	**P**	**RC**	**P**	**RC**	**P**
Low-grade inflammation (LGI)	↓	0.001	↓	<0.001	↓	<0.001
BMI (kg/m^2)	↓	0.004	↓	<0.001	↓	<0.001
Current smoker (yes/no)	↓	0.031	↓	<0.001	↓	<0.001
Age (10 year increment)	↑	0.39	↓	<0.001	↓	<0.001
Waist (10 cm increment)	↓	<0.001	↓	<0.001	↓	<0.001
Physical activity, work (low/high)	↓	0.59	↓	0.017	↓	<0.001
Physical activity, leisure (low/high)	↑	0.002	↑	<0.001	↑	<0.001
Outcome MCS	**RC**	**P**	**RC**	**P**	**RC**	**P**
Low-grade inflammation (LGI)	↑	0.28	↓	0.72	↑	0.35
BMI (kg/m^2)	↓	0.30	↑	0.056	↓	0.63
Current smoker (yes/no)	↓	0.018	↓	0.016	↓	<0.001
Age (10 year increment)	↑	<0.001	↑	<0.001	↑	<0.001
Waist (10 cm increment)	↓	0.082	↓	0.087	↓	0.12
Physical activity, work (low/high)	↑	0.39	↑	0.071	↑	<0.001
Physical activity, leisure (low/high)	↑	0.003	↑	<0.001	↑	<0.001