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Supplemental Table 1 Adjusted differences (95% CI) in lipid fraction concentrations comparing the three highest quartiles to the first quartile of red blood cell selenium, in the 2000-2001 UK National Diet and Nutrition Survey.

	Quartile of red blood cell selenium (interval in µmol/L)				
	1st (0.82 to <1.37)	2nd (1.37 to <1.60)	3rd (1.60 to <1.87)	4th (1.87 to 4.10)	*P* trend
n	246	275	244	277	
Mean, *µmol/L*	1.23±0.12	1.48±0.07	1.73±0.08	2.17±0.35	
Total cholesterol [1], *mmol/L*	5.11	5.37	5.25	5.25	
Fully-adjusted model [2]	0.00 (Reference)	0.24 (0.05, 0.44)	0.12 (-0.07, 0.31)	0.12 (-0.07, 0.32)	0.26
Non-HDL cholesterol [1], *mmol/L*	3.97	4.23	4.08	4.02	
Fully-adjusted model [2]	0.00 (Reference)	0.28 (0.08, 0.48)	0.14 (-0.05, 0.34)	0.16 (-0.03, 0.36)	0.20
HDL cholesterol [1], *mmol/L*	1.15	1.14	1.18	1.24	
Fully-adjusted model [2]	0.00 (Reference)	-0.04 (-0.10, 0.02)	-0.02 (-0.08, 0.04)	-0.04 (-0.10, 0.03)	0.61

[1] Mean lipid levels (survey-weighted).

[2] Differences calculated from fully-adjusted models include: age, sex, body mass index, smoking status, daily cigarette consumption, daily alcoholic drinking units, daily physical activity score, household income group, educational level group, employment, daily food energy, total fat intake, total cholesterol intake, polyunsaturated-to-saturated fatty acid ratio, vitamin/mineral supplement use, oral contraceptive use, and hormone replacement therapy.

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Supplemental Table 2 Adjusted differences (95% CI) in lipid fraction concentrations comparing the three highest quartiles to the first quartile of whole-blood glutathione peroxidase activity, in the 2000-2001 UK National Diet and Nutrition Survey.

	Quartile of whole-blood glutathione peroxidase activity (interval in nmol·mg Hgbn^{-1}·min^{-1})				P trend
	1st (59 to <103)	2nd (103 to <120)	3rd (120 to <142)	4th (142 to 265)	
n	259	251	254	278	
Mean, *nmol·mg Hb^{-1}·min^{-1}*	91.0±8.8	111.3±4.7	129.7±6.7	163.2±22.6	
Total cholesterol [1], *mmol/L*	5.19	5.33	5.22	5.27	
Fully-adjusted model [2]	0.00	0.12	-0.03	0.10	0.39
	(Reference)	(-0.07, 0.31)	(-0.22, 0.17)	(-0.08, 0.28)	
Non-HDL cholesterol [1], *mmol/L*	4.09	4.15	4.01	4.06	
Fully-adjusted model [2]	0.00	0.07	-0.08	0.06	0.61
	(Reference)	(-0.12, 0.26)	(-0.28, 0.12)	(-0.12, 0.24)	
HDL cholesterol [1], *mmol/L*	1.10	1.18	1.21	1.21	
Fully-adjusted model [2]	0.00	0.05	0.05	0.04	0.31
	(Reference)	(-0.01, 0.11)	(0.00, 0.11)	(-0.02, 0.09)	

[1] Mean lipid levels (survey-weighted).

[2] Differences calculated from fully-adjusted models include: age, sex, body mass index, smoking status, daily cigarette consumption, daily alcoholic drinking units, daily physical activity score, household income group, educational level group, employment, daily food energy, total fat intake, total cholesterol intake, polyunsaturated-to-saturated fatty acid ratio, vitamin/mineral supplement use, oral contraceptive use, and hormone replacement therapy.

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Supplemental Figure legend

Supplemental Figure 1. Adjusted differences (95% confidence intervals) for lipid fraction concentrations by levels of RBC selenium (left panels) and whole-blood glutathione peroxidase activity (right panels), in the 2000-2001 UK National Diet and Nutrition Survey.

The curves (read in the scale to the left) represent the adjusted differences (and the gray shading, the 95% CI) in lipids of subjects with any given value of the selenium-status parameter with respect to a subject with 1.33 µmol/L of RBC selenium (top row), or 99 nmol·mg Hb^{-1}·min^{-1} of whole-blood glutathione peroxidase activity (bottom row). Lipid concentrations at the 20th percentile of each selenium-status parameter distribution were used as reference. The differences are statistically significant for all the range where the gray shading does not include the dashed reference line that denotes a null difference. Selenium-status parameters were modeled as restricted quadratic splines with nodes at the 5th, 50th, and 95th percentiles. Multivariable linear regression models were adjusted for age, sex, body mass index, smoking status, daily cigarette consumption, daily alcoholic drinking units, daily physical activity score, household income group, educational level group, employment status, daily food energy, total fat intake, total cholesterol intake, polyunsaturated-to-saturated fatty acid ratio, vitamin/mineral supplement use, oral contraceptive use, and hormone replacement therapy. The histogram (read in the scale to the right) shows the distribution of the selenium-status parameters in the study population.