

Supplementary data

Supplemental Table 1. Coefficients and *P*-values for the fixed effects sex, BMI, and age, and *P*-values for the sex*meal interaction from the linear mixed model

iAUC _{0-6 h}	Sex*meal ^a <i>P</i>	Sex ^b coef.	Sex <i>P</i>	BMI coef.	BMI <i>P</i>	Age coef.	Age <i>P</i>
Plasma XXL-VLDL	0.58	9.86e-11	0.05	8.21e-12	0.22	2.48e-12	0.22
Plasma XL-VLDL	0.78	3.95e-10	0.11	3.71e-11	0.25	1.50e-11	0.12
Plasma L-VLDL	0.59	1.96e-09	0.12	1.65e-10	0.32	8.75e-11	0.08
Plasma M-VLDL	0.50	5.57e-09	0.04	3.13e-10	0.38	2.48e-10	0.02
Plasma S-VLDL	0.27	4.10e-09	0.06	8.80e-11	0.75	2.41e-10	0.004
Plasma XS-VLDL	0.008	1.79e-09	0.43	-1.09e-10	0.56	-1.37e-11	0.82
Plasma IDL	0.11	-1.78e-09	0.64	-3.54e-10	0.48	-2.55e-10	0.08
Plasma L-LDL	0.28	5.53e-08	0.40	-5.21e-10	0.55	-3.49e-10	0.17
Plasma M-LDL	0.49	1.07e-08	0.08	-5.45e-10	0.50	-1.70e-10	0.48
Plasma S-LDL	0.53	1.30e-08	0.05	-5.26e-10	0.53	-1.85e-10	0.46
Plasma XL-HDL	0.55	-1.28e-07	0.009	-1.16e-09	0.86	-3.67e-09	0.06
Plasma L-HDL	0.24	-3.72e-07	0.001	3.65e-09	0.79	-8.92e-09	0.03
Plasma M-HDL	0.15	-1.09e-08	0.16	1.35e-08	0.18	-4.26e-09	0.15
Plasma S-HDL	0.61	1.66e-07	0.24	9.90e-09	0.59	1.06e-10	0.98

iAUC, incremental area under the curve; coef., coefficient; XXL, extremely large; XL, very large; L, large; M, medium; S, small; XS, very small; IDL, intermediate-density lipoprotein.

^a Non-significant sex*meal interactions were excluded from the model.

^b Men compared to women.

Supplemental Table 2. Coefficients and *P*-values for the sex difference in meal responses for XS-VLDL particle concentration^a

	iAUC_{0-6 h}		
	Coef. ^b	<i>P</i>	<i>P</i> *
XS-VLDL			
Butter	1.79e-09	0.43	1
Cheese	5.14e-10	0.81	1
Whipped cream	-1.70e-09	0.45	1
Sour cream	-6.77e-09	0.003	0.01

XS, very small; iAUC, incremental area under the curve, Coef., Coefficient

^a Results are from a linear mixed model.

^b Men compared to women.

* Bonferroni corrected *P*-value.

Supplemental Table 3. Coefficients and *P*-values for meal comparisons for VLDL subclass particle concentrations in women and men together^a

		Both sexes					
		Coef.	<i>P</i>	<i>P</i> *			
XXL-VLDL							
Cheese	vs. Butter	9.94e-11	<0.001	<0.001			
Whipped cream	vs. Butter	1.07e-12	0.96	1			
Sour cream	vs. Butter	5.98e-11	0.01	0.07			
Whipped cream	vs. Cheese	-9.84e-11	<0.001	<0.001			
Sour cream	vs. Cheese	-3.96e-11	0.09	0.56			
Sour cream	vs. Whipped cream	5.87e-11	0.01	0.07			
XL-VLDL							
Cheese	vs. Butter	3.90e-10	0.001	0.006			
Whipped cream	vs. Butter	6.87e-12	0.95	1			
Sour cream	vs. Butter	2.11e-10	0.07	1			
Whipped cream	vs. Cheese	-3.83e-10	0.001	0.006			
Sour cream	vs. Cheese	-1.79e-10	0.12	0.71			
Sour cream	vs. Whipped cream	2.04e-10	0.07	0.43			
L-VLDL							
Cheese	vs. Butter	1.64e-09	0.006	0.04			
Whipped cream	vs. Butter	9.29e-11	0.88	1			
Sour cream	vs. Butter	8.82e-10	0.14	1			
Whipped cream	vs. Cheese	-1.54e-09	0.009	0.05			
Sour cream	vs. Cheese	-7.54e-10	0.21	1			
Sour cream	vs. Whipped cream	7.89e-10	0.18	1			
M-VLDL							
Cheese	vs. Butter	3.69e-09	0.01	0.08			
Whipped cream	vs. Butter	4.63e-10	0.76	1			
Sour cream	vs. Butter	1.31e-09	0.38	1			
Whipped cream	vs. Cheese	-3.23e-09	0.03	0.17			
Sour cream	vs. Cheese	-2.37e-09	0.11	0.67			
Sour cream	vs. Whipped cream	8.52e-10	0.56	1			
S-VLDL							
Cheese	vs. Butter	1.95e-09	0.23	1			
Whipped cream	vs. Butter	8.56e-10	0.60	1			
Sour cream	vs. Butter	-1.71e-09	0.29	1			
Whipped cream	vs. Cheese	-1.10e-09	0.49	1			
Sour cream	vs. Cheese	-3.67e-09	0.03	0.15			
Sour cream	vs. Whipped cream	-2.57e-09	0.11	1			
XS-VLDL							
		Women			Men		
		Coef.	<i>P</i>	<i>P</i> *	Coef.	<i>P</i>	<i>P</i> *
Cheese	vs. Butter	-1.17e-09	0.42	1	-2.45e-09	0.27	1
Whipped cream	vs. Butter	2.26e-09	0.11	0.68	-1.23e-09	0.59	1
Sour cream	vs. Butter	9.53e-11	0.95	1	-8.46e-09	<0.001	0.001
Whipped cream	vs. Cheese	3.43e-09	0.02	0.11	1.22e-09	0.57	1
Sour cream	vs. Cheese	1.27e-09	0.39	1	-6.02e-09	0.007	0.04
Sour cream	vs. Whipped cream	-2.17e-09	0.13	0.76	-7.24e-09	0.001	0.006

Coef, Coefficient; XXL, extremely large; vs, versus; XL, very large; L, large; M, medium; S, small; XS, very small.

^a Pairwise meal comparisons were performed by combining the appropriate regression coefficients from the linear mixed model. The coefficients represent the differences between the meals.

* Bonferroni corrected *P*-value.

Supplemental Table 4. Coefficients and *P*-values for meal comparisons for HDL subclass particle concentrations in women and men together^a

			Both sexes		
			Coef.	<i>P</i>	<i>P</i> *
XL-HDL					
Cheese	vs.	Butter	-2.77e-09	0.94	1
Whipped cream	vs.	Butter	-5.00e-08	0.14	0.86
Sour cream	vs.	Butter	9.39e-08	0.006	0.04
Whipped cream	vs.	Cheese	-4.72e-08	0.16	0.98
Sour cream	vs.	Cheese	9.67e-08	0.005	0.03
Sour cream	vs.	Whipped cream	1.44e-07	<0.001	<0.001
L-HDL					
Cheese	vs.	Butter	-6.98e-08	0.50	1
Whipped cream	vs.	Butter	-3.05e-08	0.76	1
Sour cream	vs.	Butter	2.42e-07	0.02	0.11
Whipped cream	vs.	Cheese	3.93e-08	0.70	1
Sour cream	vs.	Cheese	3.12e-07	0.002	0.01
Sour cream	vs.	Whipped cream	2.73e-07	0.007	0.04
M-HDL					
Cheese	vs.	Butter	-1.80e-07	0.01	0.08
Whipped cream	vs.	Butter	-4.77e-08	0.51	1
Sour cream	vs.	Butter	9.16e-08	0.21	1
Whipped cream	vs.	Cheese	1.32e-07	0.07	0.40
Sour cream	vs.	Cheese	2.71e-07	<0.001	<0.001
Sour cream	vs.	Whipped cream	1.39e-07	0.05	0.32
S-HDL					
Cheese	vs.	Butter	-3.35e-07	0.005	0.03
Whipped cream	vs.	Butter	3.13e-08	0.79	1
Sour cream	vs.	Butter	-1.95e-07	0.10	0.62
Whipped cream	vs.	Cheese	3.66e-07	0.002	0.01
Sour cream	vs.	Cheese	1.39e-07	0.25	1
Sour cream	vs.	Whipped cream	-2.27e-07	0.05	0.32

Coef, Coefficient; XL, very large; vs, versus; L, large; M, medium; S, small.

^a Pairwise meal comparisons were performed by combining the appropriate regression coefficients from the linear mixed model. The coefficients represent the differences between the meals.

* Bonferroni corrected *P*-value.

Supplemental Table 5. Coefficients and *P*-values for meal comparisons for IDL and LDL subclass particle concentrations in women and men together^a

			Both sexes		
			Coef.	<i>P</i>	<i>P</i> *
IDL					
Cheese	vs.	Butter	-2.91e-09	0.38	1
Whipped cream	vs.	Butter	3.47e-09	0.29	1
Sour cream	vs.	Butter	-4.04e-09	0.23	1
Whipped cream	vs.	Cheese	6.38e-09	0.05	0.31
Sour cream	vs.	Cheese	-1.13e-09	0.73	1
Sour cream	vs.	Whipped cream	-7.51e-09	0.02	0.13
L-LDL					
Cheese	vs.	Butter	-4.25e-09	0.51	1
Whipped cream	vs.	Butter	6.99e-09	0.27	1
Sour cream	vs.	Butter	-1.03e-08	0.11	0.64
Whipped cream	vs.	Cheese	1.12e-08	0.07	0.44
Sour cream	vs.	Cheese	-6.06e-09	0.34	1
Sour cream	vs.	Whipped cream	-1.73e-08	0.006	0.04
M-LDL					
Cheese	vs.	Butter	-3.98e-09	0.50	1
Whipped cream	vs.	Butter	7.13e-09	0.22	1
Sour cream	vs.	Butter	-1.14e-08	0.05	0.32
Whipped cream	vs.	Cheese	1.11e-08	0.05	0.32
Sour cream	vs.	Cheese	-7.41e-09	0.21	1
Sour cream	vs.	Whipped cream	-1.85e-08	0.001	0.006
S-LDL					
Cheese	vs.	Butter	-4.19e-09	0.52	1
Whipped cream	vs.	Butter	7.20e-09	0.26	1
Sour cream	vs.	Butter	-1.16e-08	0.07	0.43
Whipped cream	vs.	Cheese	1.14e-08	0.07	0.43
Sour cream	vs.	Cheese	-7.46e-09	0.25	1
Sour cream	vs.	Whipped cream	-1.88e-08	0.003	0.02

Coef, Coefficient; IDL, intermediate-density lipoprotein; vs, versus; L, large; M, medium; S, small.

^a Pairwise meal comparisons were performed by combining the appropriate regression coefficients from the linear mixed model. The coefficients represent the differences between the meals.

*Bonferroni corrected *P*-value.