

Supplementary Table 1: Risk of incident diabetes associated with per standard unit of fatty acids

Fatty acid*	ODDS RATIO for Risk of Diabetes Mellitus (95% Confidence intervals)							
	Unadjusted	p	Model 1 [†]	p	Model 2 [‡]	p	Model 3 [§]	p
SFAs								
Myristic acid (14:0)	1.11 (0.93, 1.32)	0.24	1.13 (0.90, 1.41)	0.30	1.19 (0.94, 1.52)	0.30	1.19 (0.94, 1.516)	0.152
Palmitic acid (16:0)	1.46 (1.23, 1.76)	<0.001	1.54 (1.21, 1.97)	0.001	1.49 (1.15, 1.94)	0.003	1.56 (1.19, 2.05)	0.001
Stearic acid (18:0)	1.00 (0.83, 1.20)	>0.99	0.94 (0.75, 1.19)	0.63	0.89 (0.69, 1.15)	0.37	0.88 (0.68, 1.15)	0.35
MUFAs								
Myristoleic acid (14:1n5)	1.01 (0.85, 1.21)	0.88	1.03 (0.82, 1.29)	0.80	1.04 (0.82, 1.31)	0.76	1.077 (0.846, 1.371)	0.55
Palmitoleic acid (16:1n7)	1.37 (1.16, 1.63)	<0.001	1.51 (1.17, 1.95)	0.002	1.44 (1.10, 1.90)	0.009	1.51 (1.14, 2.01)	0.005
Oleic acid (18:1n9)	1.33 (1.12, 1.60)	0.002	1.24 (0.94, 1.62)	0.13	1.10 (0.82, 1.48)	0.53	1.11 (0.82, 1.51)	0.51
Ratios								
Palmitoleic acid/Palmitic acid (SCD1)	1.32 (1.11, 1.58)	0.002	1.44 (1.11, 1.87)	0.006	1.36 (1.03, 1.80)	0.03	1.41 (1.054, 1.885)	0.02
Oleic acid/Stearic acid (SCD1)	1.24 (1.04, 1.49)	0.01	1.18 (0.91, 1.53)	0.22	1.13 (0.85, 1.49)	0.40	1.15 (0.85, 1.54)	0.36
Stearic acid/Palmitic acid (Evol 6)	0.79 (0.66, 0.96)	0.01	0.74 (0.58, 0.95)	0.02	0.73 (0.56, 0.95)	0.02	0.71 (0.53, 0.93)	0.01

*All the values of fatty acids and their ratios were converted into standard deviation units. All Odds Ratios are per 1 standard deviation unit. MUFA, monounsaturated fatty acid; SFA, saturated fatty acid

[†]Model 1: Age, sex, ethnicity, 5-yr change in body mass index, carbohydrate intake, oral glucose tolerance status, physical activity, family history of diabetes, alcohol, smoking status and education

[‡]Model 2: Model 1 covariates and insulin sensitivity

[§]Model 3: Model 2 covariates and acute insulin response