

Youth and long-term dietary calcium intake with risk of impaired glucose metabolism and type 2 diabetes in adulthood

Supplemental Appendix

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Abbreviated title: Youth calcium with adult glucose metabolism

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Table S1. Comparison of baseline characteristics between participants with complete data and those lost to follow-up (or with incomplete baseline characteristics)

Characteristics	n	Lost to follow-up	n	Complete
Age (year)	2462	10.4 (5.0)	1134	10.6 (5.0)
BMI (kg/m ²)	2433	17.8 (3.1)	1134	17.9 (3.1)
25OHD (nmol/L)	2382	51.0 (15.5)	1134	51.9 (15.3)
Dietary calcium intake (mg/d)	633	1134 (454)	1134	1142 (462)
Physical activity index (z score)	2371	0.01 (1.00)	1134	-0.02 (1.00)
Parental history of diabetes, n (%)	2433	68 (2.8)	1134	20 (1.8)
Fruit consumption (>6 times/week), n (%)	2429	1941 (80)	1134	914 (81)
Vegetable consumption (>6 times/week), n (%)	2428	838 (35)	1134	395 (35)
Smokers, n (%)	2365	154 (6.5)	1134	68 (6.0)
Parental years of education	2309	10.0 (3.3)	1134	9.8 (3.6)

Values are mean (standard deviation) unless otherwise stated.

Abbreviations: BMI, body mass index; 25OHD, 25-hydroxyvitamin D.

Table S2. Relative risk and 95% confidence interval for IFG and T2D in adulthood by tertile of long-term dietary calcium intake and sex

	Females		
	Tertile 1 (n= 193)	Tertile 2 (n= 193)	Tertile 3 (n= 192)
Calcium intake, mean (range) (mg/d)	854 (394 to 1013)	1149 (1014 to 1289)	1553 (1290 to 2462)
NFG, n (%) ^a	163 (84)	159 (82)	161 (84)
IFG, n (%)	27 (14)	26 (14)	23 (12)
Model 1	Reference	0.99 (0.60 to 1.63)	0.88 (0.52 to 1.48)
Model 2	Reference	1.06 (0.64 to 1.76)	1.03 (0.62 to 1.71)
Model 3	Reference	1.09 (0.66 to 1.81)	1.00 (0.60 to 1.67)
T2D, n (%)	3 (2)	8 (4)	8 (4)
Model 1	Reference	2.65 (0.71 to 9.83)	2.62 (0.71 to 9.72)
Model 2	Reference	1.63 (0.38 to 7.11)	2.56 (0.71 to 9.21)
Model 3	Reference	1.51 (0.37 to 6.11)	2.22 (0.65 to 7.60)
	Males		
	Tertile 1 (n= 186)	Tertile 2 (n= 185)	Tertile 3 (n= 185)
Calcium intake, mean (range) (mg/d)	988 (520 to 1185)	1351 (1190 to 1510)	1821 (1514 to 3568)
NFG, n (%) ^a	131 (70)	121 (65)	109 (59)
IFG, n (%)	48 (26)	53 (29)	63 (34)
Model 1	Reference	1.14 (0.82 to 1.58)	1.37 (0.99 to 1.87)
Model 2	Reference	1.06 (0.77 to 1.47)	1.22 (0.89 to 1.66)
Model 3	Reference	1.06 (0.77 to 1.47)	1.22 (0.89 to 1.67)
T2D, n (%)	7 (4)	11 (6)	13 (7)
Model 1	Reference	1.64 (0.66 to 4.12)	2.10 (0.87 to 5.10)
Model 2	Reference	1.31 (0.55 to 3.13)	1.30 (0.53 to 3.19)
Model 3	Reference	1.16 (0.49 to 2.74)	1.35 (0.56 to 2.34)

Values are relative risk (95% confidence interval) unless otherwise stated.

^a reference group for the outcome comparison.

Model 1, unadjusted; Model 2, adjusted for age and childhood and adulthood body mass index; Model 3, model 2 + baseline serum 25OHD levels, parental history of diabetes, fruit and vegetable consumption, physical activity, smoking, and socioeconomic status (parental education years).

Abbreviations: NFG, normal fasting glucose; IFG, impaired fasting glucose; T2D, type 2 diabetes.

Figure S1. Flowchat of participation in the YFS

