



Supplemental Figure 1. Participant Selection and Follow-up flow

Supplemental Table 1. Baseline Characteristics of Participants with follow-up data who were not centrally obese at baseline according to incident central obesity¹

	Non-central obesity (N=923)	New case of central obesity (N=70)	<i>P</i>
Age category, y			<0.0001
2-9	221 (25.9)	5 (7.1)	
10-14	362 (42.4)	26 (37.1)	
15-	270 (31.7)	39 (55.7)	
Sex			<0.0001
Female	391 (45.8)	49 (70.00)	
Male	462 (54.2)	21 (30.0)	
Race			0.39
Non-Hispanic Black	60 (7.0)	8 (11.4)	
Non-Hispanic White	698 (81.8)	54 (77.1)	
Other	95 (11.1)	8 (11.4)	
Parental education			0.35
High school or less	149 (17.5)	17 (24.3)	
Some college/Associate's degree	277 (32.6)	22 (31.4)	
Bachelor's degree or more	425 (49.9)	31 (44.3)	
Income, K\$			0.026
DK/Ref ²	56 (6.6)	0 (0)	
<25	89 (10.5)	12 (17.1)	
25-49	176 (20.7)	20 (28.6)	
50-74	175 (20.6)	9 (12.9)	
>75	354 (41.7)	29 (41.4)	
Insulin regimen			0.65
Basal-bolus	652 (77.3)	55 (79.7)	
The others	191 (22.7)	14 (20.3)	

¹ Values are n (%).² DK/Ref: Don't know/Refused.

Supplemental Table 2. Odds Ratios (OR) (95% CI) of Incident Central Obesity of Every SD Unit of Baseline Biomarkers using Logistic Regression Analysis¹

Exposure variables	Baseline Non-central Obese		
	Model 1 ²	Model 2 ³	Model3 ⁴
	OR (95% CI)	OR (95% CI)	OR (95% CI)
PA(16:0)	1.01 (0.85, 1.20)	1.12 (0.91, 1.38)	1.11 (0.86, 1.44)
SA(18:0)	1.02 (0.87, 1.21)	0.87 (0.69, 1.10)	0.68 (0.50, 0.93)
POA(16:1)	0.99 (0.82, 1.20)	1.06 (0.84, 1.36)	1.17 (0.79, 1.75)
OA(18:1)	0.89 (0.73, 1.07)	0.88 (0.69, 1.13)	0.89 (0.66, 1.20)
LA(18:2)	1.00 (0.85, 1.19)	1.01 (0.81, 1.26)	1.22 (0.90, 1.65)
DGLA(20:3)	1.03 (0.88, 1.20)	1.03 (0.83, 1.27)	1.09 (0.84, 1.41)
AA(20:4)	1.02 (0.87, 1.19)	0.99 (0.81, 1.20)	0.88 (0.67, 1.14)
ALA(18:3)	1.11 (0.94, 1.32)	1.00 (0.79, 1.27)	0.97 (0.75, 1.26)
EPA(20:5)	1.05 (0.90, 1.22)	1.10 (0.90, 1.36)	1.11 (0.85, 1.45)
DHA(22:6)	0.96 (0.80, 1.15)	0.96 (0.74, 1.23)	0.82 (0.56, 1.20)
n-6/n-3	0.95 (0.80, 1.13)	0.92 (0.72, 1.18)	1.07 (0.76, 1.50)
D5D	1.00 (0.86, 1.17)	1.02 (0.83, 1.24)	0.95 (0.72, 1.25)
D6D	1.02 (0.86, 1.21)	1.02 (0.82, 1.28)	1.02 (0.77, 1.34)
D9D-16	0.99 (0.81, 1.20)	1.04 (0.80, 1.36)	1.12 (0.72, 1.75)
D9D-18	0.92 (0.78, 1.09)	0.97 (0.78, 1.21)	1.08 (0.82, 1.42)
Vitamin D	0.81 (0.68, 0.96)	0.84 (0.69, 1.03)	0.82 (0.65, 1.04)
Vitamin E	1.10 (0.95, 1.27)	1.08 (0.90, 1.31)	1.13 (0.91, 1.40)

¹ Values are ORs (95% CI).

² Model 1 adjusted for baseline waist and time between the baseline and the follow-up examinations diabetes duration.

³ Model 2 further adjusted for age group at follow-up, sex, race/ethnicity, season (only for vitamin D), parental education at baseline, clinic site at baseline, insulin regimen, insulin dose and HbA1c at follow-up base on model 1.

⁴ Model 3 further adjusted for BMI group at follow-up base on model 2.