

Supplementary Table 1. Characteristic comparison among free fatty acid levels quartiles

Characteristic	Quartile 1 (n=950)	Quartile 2 (n=953)	Quartile 3 (n=950)	Quartile 4 (n=1,157)	P value	Post hoc comparison					
						Q1 vs. Q2	Q1 vs. Q3	Q1 vs. Q4	Q2 vs. Q3	Q2 vs. Q4	Q3 vs. Q4
Age, yr	46.6±28.0	44.7±14.4	45.0±14.7	47.1±14.6	0.02	0.04	0.09	0.59	0.77	<0.01	0.02
Male sex, %	64.7	64.0	62.9	60.0	0.21	-	-	-	-	-	-
Current smoker, %	9.1	9.3	9.7	9.1	0.34	-	-	-	-	-	-
BMI, kg/m ²	24.2 (21.9–26.6)	24.6 (22.3–27.1)	24.5 (22.2–27.3)	24.7 (21.6–27.4)	0.26	-	-	-	-	-	-
WC, cm	85 (77–91)	87 (80–93)	85 (78–93)	86 (78–93)	0.12	-	-	-	-	-	-
SBP, mm Hg	125 (117–139)	126 (118–137)	128 (120–140)	130 (120–143)	<0.01	1.00	0.16	<0.01	1.00	0.03	1.00
DBP, mm Hg	82 (73–89)	83 (75–90)	85 (77–93)	85 (77–94)	<0.01	0.35	<0.01	<0.01	0.08	0.02	1.00
ALT, U/L	28 (18–44)	31 (20–50)	32 (22–54)	34 (21–58)	<0.01	<0.01	<0.01	<0.01	0.85	<0.01	0.31
AST, U/L	26 (20–32)	27 (22–36)	29 (22–41)	31 (24–47)	<0.01	<0.01	<0.01	<0.01	1.00	<0.01	<0.01
GGT, U/L	28 (18–46)	29 (19–47)	33 (22–56)	37 (23–66)	<0.01	1.00	<0.01	<0.01	0.04	<0.01	0.01
ALP, U/L	73 (62–86)	73 (64–87)	77 (67–90)	81 (68–95)	<0.01	1.00	<0.01	<0.01	<0.01	<0.01	0.04
Uric acid, μmol/L	361 (297–428)	386 (306–452)	372 (306–446)	380 (316–451)	<0.01	<0.01	0.41	<0.01	0.35	1.00	0.21
CHOL, mmol/L	4.7 (4.0–5.4)	5.0 (4.3–5.7)	5.0 (4.2–5.6)	5.0 (4.2–5.8)	<0.01	<0.01	<0.01	<0.01	1.00	1.00	0.87
TG, mmol/L	1.3 (0.9–1.8)	1.3 (0.9–1.9)	1.3 (0.9–2.0)	1.2 (0.9–1.8)	0.35	-	-	-	-	-	-
HDL-C, mmol/L	1.1 (1.0–1.3)	1.2 (1.0–1.4)	1.2 (1.0–1.4)	1.2 (1.0–1.5)	<0.01	0.85	0.09	<0.01	1.00	0.01	0.22
LDL-C, mmol/L	2.9 (2.4–3.4)	3.1 (2.6–3.7)	3.1 (2.5–3.6)	3.1 (2.6–3.7)	<0.01	<0.01	<0.01	<0.01	1.00	1.00	1.00
FPG, mmol/L	4.9 (4.4–5.5)	4.8 (4.4–5.4)	4.9 (4.5–5.5)	5.0 (4.5–5.8)	<0.01	1.00	1.00	<0.01	0.44	<0.01	0.02
FINS, μU/mL	7.3 (5.1–10.1)	7.8 (5.5–11.5)	7.8 (5.3–11.4)	7.9 (5.1–11.2)	0.06	-	-	-	-	-	-
HOMA-IR	1.5 (1.0–2.4)	1.7 (1.1–2.5)	1.8 (1.1–3.0)	2.3 (1.3–4.5)	<0.01	0.58	<0.01	<0.01	0.05	<0.01	<0.01
Adipo-IR	16.1 (10.8–22.6)	25.6 (17.7–37.1)	31.4 (21.9–48.2)	46.2 (29.6–67.4)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
HbA1c, %	6.1 (5.5–7.7)	6.1 (5.5–7.6)	5.9 (5.4–7.8)	6.7 (6.0–10.0)	<0.01	1.00	1.00	<0.01	1.00	0.02	<0.01
2hPG, mmol/L	10.0 (6.5–17.4)	9.3 (7.6–14.0)	9.0 (7.5–11.8)	10.1 (6.6–14.4)	0.90	-	-	-	-	-	-
IR, %	17.6	21.4	29.6	43.2	<0.01	0.06	0.02	0.02	<0.01	<0.01	<0.01
Prediabetes, %	13.2	11.6	13.9	13.6	0.54	-	-	-	-	-	-
T2DM, %	18.5	19.2	22.6	36.7	<0.01	0.56	0.08	<0.01	0.09	<0.01	<0.01

Values are presented as mean ± standard deviation and median (interquartile range).

BMI, body mass index; WC, waist circumference; SBP, systolic blood pressure; DBP, diastolic blood pressure; ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, γ-glutamyl transpeptidase; ALP, alkaline phosphatase; CHOL, cholesterol; TG, triglyceride; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; FPG, fasting plasma glucose; FINS, fasting insulin; HOMA-IR, homeostasis model assessment of insulin resistance; Adipo-IR, adipose tissue insulin resistance; HbA1c, glycosylated hemoglobin; 2hPG, 2-hour plasma glucose; IR, insulin resistance; T2DM, type 2 diabetes mellitus.