

Supplementary Table 1. Characteristics of the study participants as per the genetic risk score

	Genetic risk score (5 SNP; 0-9)				P-value [†]
	0-3 (n = 769)	4 (n = 631)	5 (n = 541)	6-9 (n = 650)	
Serum 25(OH)D levels (ng/mL)	16.4 ± 0.2 ^a	16.7 ± 0.2 ^a	17.2 ± 0.2 ^{ab}	17.6 ± 0.2 ^b	< 0.001
Lifestyle variables					
Age (yrs)	50.4 ± 0.5	49.9 ± 0.6	50.8 ± 0.6	49.6 ± 0.6	0.520
Male (% , n)	46.9 (361)	45.8 (289)	51.2 (277)	47.5 (309)	0.289
Body mass index (kg/m ²)	24.0 ± 0.1	24.0 ± 0.1	24.2 ± 0.1	23.9 ± 0.1	0.330
Education (elementary school/middle school/high school/university) (%)	23.4/11.8/25.5/29.3	23.2/12.7/36.7/27.4	23.1/13.2/31.6/32.1	21.5/12.5/36.7/29.4	0.722
Smoking status (never/former/sometimes/daily) (%)	54.3/20.8/1.3/23.6	54.4/23.5/2.6/19.5	53.7/22.2/2.3/21.8	58.6/20.1/1.6/19.8	0.281
Drinking experience (no/yes) (%)	12.2/87.8	11.4/88.6	10.9/89.1	10.6/89.4	0.805
Physical activity (% , n)	49.8 (376)	42.2 (262)	44.2 (231)	45.4 (289)	0.034
Use of antihypertensive medication (% , n)	20.7 (155)	21.8 (135)	21.1 (110)	21.1 (133)	0.970
Cardiovascular risk factors					
TG (mg/dL)*	137.4 ± 4.7	140.6 ± 4.4	142.2 ± 4.8	133.0 ± 3.8	0.101
TC (mg/dL)	190.6 ± 1.3	189.7 ± 1.4	188.1 ± 1.5	189.0 ± 1.4	0.615
HDL-C (mg/dL)	50.0 ± 0.5	49.3 ± 0.5	48.5 ± 0.5	50.0 ± 0.5	0.105
LDL-C (mg/dL)	114.4 ± 1.2	113.5 ± 1.3	112.3 ± 1.4	113.1 ± 1.2	0.700
FBG (mg/dL)*	99.0 ± 0.8	98.7 ± 0.8	99.4 ± 0.8	99.3 ± 0.9	0.863
HbA1c (%)*	5.76 ± 0.03	5.78 ± 0.03	5.78 ± 0.03	5.81 ± 0.03	0.582
AST (IU/L)*	23.8 ± 1.0	22.8 ± 0.4	23.0 ± 0.5	22.7 ± 0.5	0.923
ALT (IU/L)*	22.2 ± 1.2	22.4 ± 0.8	22.9 ± 0.7	22.9 ± 0.8	0.232

Values are expressed as means ± standard errors for continuous variables and number of counts and percentages for categorical variables.

[†] Statistical differences among genetic risk score groups were determined using one-way ANOVA with Bonferroni's multiple comparison for continuous variables and chi-squared test for categorical variables.

* Tested after log-transformation.

TG, triglycerides; TC, total cholesterol; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; FBG, fasting blood glucose; HbA1c, glycosylated hemoglobin A1c; AST, aspartate aminotransferase; ALT, alanine aminotransferase.