

Supplementary Table 1. Variance Inflation Factor in Models

Model 1*		Model 2†	
Variable	VIF	Variable	VIF
Age	1.019	Age	1.652
Sex	1.147	Sex	2.033
Fatty liver index	1.135	Smoking	1.908
		Alcohol consumption	1.288
		Activity, MET-min/wk	1.029
		SBP, mm Hg	2.494
		DBP, mm Hg	2.333
		log(FBG), mg/dL	1.263
		log(total cholesterol), mg/dL	2.608
		log(LDL-cholesterol), mg/dL	2.451
		log(AST), IU/L	2.467
		log(ALT), IU/L	3.003
		Diabetes mellitus	1.317
		Dyslipidemia	1.112
		Hypertension	1.592
		Coronary artery disease	1.134
		Arrhythmia	1.076
		Valvular heart disease	1.044
		Peripheral arterial disease	1.123
		Cardiovascular disease	1.123
		Osteoporosis	1.248
		Use of steroid	1.015
		Use of vitamin D	1.058
		Fatty liver index	1.800

VIF, variance inflation factor; MET, metabolic equivalent of task; SBP, systemic blood pressure; DBP, diastolic blood pressure; FBG, fasting blood glucose; LDL, low-density lipoprotein; AST, aspartate aminotransferase; ALT, alanine aminotransferase.

*Cox proportional hazard model including age and sex as covariates;

†Cox proportional hazard model including age, sex, smoking status, alcohol consumption, activity, SBP, DBP, diabetes mellitus, dyslipidemia, hypertension, coronary artery disease, arrhythmia, valvular heart disease, peripheral arterial disease, cerebrovascular disease, osteoporosis, use of steroids, and use of vitamin D supplements as covariates, and log-transformed FBG, total cholesterol, LDL cholesterol, ALT activity, and AST activity as covariates.

Supplementary Table 2. Relationship between Fatty Liver Index and Incident Fracture According to Bedogni *et al.*²⁷

Fatty liver index	No.	Incident fracture No. (%)	Univariate		Model 1 [†]		Model 2 [†]	
			HR [95% CI]	p-value	HR [95% CI]	p-value	HR [95% CI]	p-value
0 to <30	124,186	1,493 (1.2)	Reference		Reference		Reference	
30 to <60	35,857	782 (2.2)	1.770 (1.624–1.930)	<0.001	1.487 (1.361–1.625)	<0.001	1.189 (1.081–1.308)	<0.001
≥60	20,476	445 (2.2)	1.819 (1.636–2.022)	<0.001	1.947 (1.744–2.173)	<0.001	1.342 (1.180–1.527)	<0.001
Continuous	180,519	2,720 (1.5)	1.012 (1.010–1.013)	<0.001	1.012 (1.010–1.013)	<0.001	1.005 (1.003–1.007)	<0.001

HR, hazard ratio; CI, confidence interval.

*Cox proportional hazard model including age and sex as covariates; [†]Cox proportional hazard model including age, sex, smoking status, alcohol consumption, activity, systolic blood pressure, diastolic blood pressure, fasting blood glucose, total cholesterol, alanine aminotransferase activity, aspartate aminotransferase activity, diabetes mellitus, dyslipidemia, hypertension, coronary artery disease, arrhythmia, valvular heart disease, peripheral arterial disease, cerebrovascular disease, osteoporosis, use of steroids, and use of vitamin D supplements as covariates.

Supplementary Table 3. Relationship between FLI and Incident Fracture According to Yang *et al.*³¹

FLI*	No.	Incident fracture No. (%)	Univariate		Model 1 [†]		Model 2 [‡]	
			HR (95% CI)	p-value	HR (95% CI)	p-value	HR (95% CI)	p-value
Low probability	98,099	975 (1.0)	Reference		Reference		Reference	
Intermediate probability	25,994	454 (1.7)	1.727 (1.545–1.930)	<0.001	1.129 (1.009–1.263)	0.034	0.968 (0.875–1.099)	0.575
High probability	56,426	1,291 (2.3)	2.285 (2.103–2.483)	<0.001	1.607 (1.479–1.747)	<0.001	1.161 (1.053–1.281)	0.003
Continuous	180,519	2,720 (1.5)	1.012 (1.010–1.013)	<0.001	1.012 (1.010–1.013)	<0.001	1.005 (1.003–1.007)	<0.001

FLI, fatty liver index; HR, hazard ratio; CI, confidence interval.

*FLI: (1) Low probability: male FLI, 0 to <25 and female FLI, 0 to <10; (2) Intermediate probability: male FLI, 25 to <35 and female FLI, 10 to <20 (3) High probability: male FLI, ≥ 35 and female FLI, ≥ 20 ; [†]Cox proportional hazard model including age and sex as covariates; [‡]Cox proportional hazard model including age, sex, smoking status, alcohol consumption, activity, systolic blood pressure, diastolic blood pressure, fasting blood glucose, total cholesterol, alanine aminotransferase activity, aspartate aminotransferase activity, diabetes mellitus, dyslipidemia, hypertension, coronary artery disease, arrhythmia, valvular heart disease, peripheral arterial disease, cerebrovascular disease, osteoporosis, use of steroids, and use of vitamin D supplements as covariates.