

**Table S1.** Comparisons of the differences in AUC for prediction of different severity of CAC between METS-VF and anthropometric indices using DeLong's test

	Presence of CAC (CACS >0)		Mild CAC (CACS 1–99)		Moderate CAC (CACS 100–399)		Severe CAC (CACS ≥400)	
	AUC (95% CI)	<i>P</i> -value	AUC (95% CI)	<i>P</i> -value	AUC (95% CI)	<i>P</i> -value	AUC (95% CI)	<i>P</i> -value
METS-VF	0.710 (0.679–0.741)	Reference	0.682 (0.645–0.718)	Reference	0.757 (0.702–0.812)	Reference	0.807 (0.744–0.870)	Reference
METS-IR	0.634 (0.601–0.667)	<0.001	0.619 (0.580–0.657)	<0.001	0.654 (0.593–0.715)	<0.001	0.696 (0.628–0.765)	<0.001
BMI	0.610 (0.576–0.643)	<0.001	0.597 (0.558–0.635)	<0.001	0.607 (0.545–0.669)	<0.001	0.703 (0.634–0.772)	<0.001
WC	0.647 (0.615–0.680)	<0.001	0.628 (0.591–0.666)	<0.001	0.667 (0.609–0.726)	<0.001	0.736 (0.665–0.806)	<0.001
VAI	0.571 (0.536–0.606)	<0.001	0.567 (0.527–0.607)	<0.001	0.595 (0.522–0.668)	<0.001	0.551 (0.462–0.640)	<0.001
TyG index	0.611 (0.577–0.625)	<0.001	0.598 (0.560–0.637)	<0.001	0.654 (0.587–0.722)	0.007	0.609 (0.523–0.695)	<0.001

Abbreviations: AUC, area under curve; CAC, coronary artery calcification; CACS, coronary artery calcium score; METS-VF, metabolic score for visceral fat; METS-IR, metabolic score for insulin resistance; BMI, body mass index; WC, waist circumference; VAI, visceral adiposity index; TyG, triglyceride-glucose.

**Table S2.** Integrated discrimination improvement and net reclassification improvement by adding METS-VF to the model including covariables in predicting the presence of CAC

	Integrated discrimination improvement			Net reclassification improvement		
	IDI (%)	CI (%)	<i>P</i> -value	NRI (%)	CI (%)	<i>P</i> -value
Baseline model + METS-VF	0.83	0.31–1.35	0.002	25.1	13.1–37.2	<0.001

Baseline model was adjusted for age, sex, hypertension, diabetes, current smoking, total cholesterol, HDL cholesterol, LDL cholesterol, triglyceride, uric acid, and eGFR.

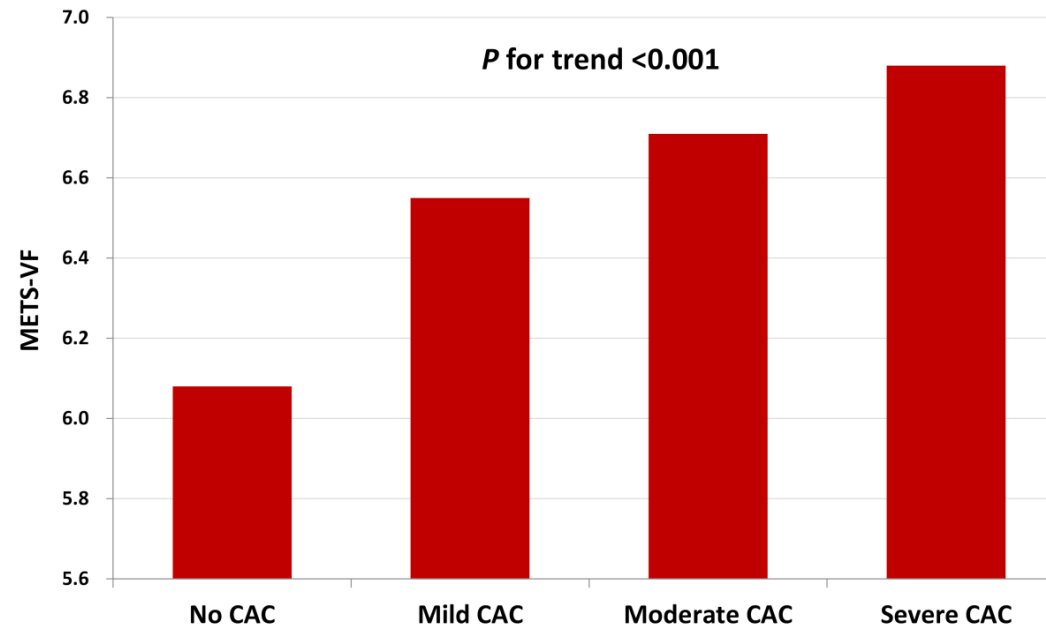
All estimates are provided with 95% confidence intervals.

**Table S3.** Integrated discrimination improvement and net reclassification improvement by adding METS-VF or anthropometric indices to the model including covariables in predicting the presence of CAC

Baseline model plus	Integrated discrimination improvement			Net reclassification improvement		
	IDI (%)	CI (%)	<i>P</i> -value	NRI (%)	CI (%)	<i>P</i> -value
METS-VF <i>vs.</i> BMI	0.68	0.31–1.06	<0.001	17.7	5.6–29.8	0.004
METS-VF <i>vs.</i> WC	0.63	0.31–0.96	<0.001	20.7	8.6–32.7	<0.001
METS-VF <i>vs.</i> VAI	0.81	0.28–1.34	0.003	23.5	11.4–35.5	<0.001
METS-VF <i>vs.</i> TyG index	0.77	0.25–1.29	0.004	19.9	7.8–32.0	0.001
METS-VF <i>vs.</i> METS-IR	0.58	0.22–0.95	0.002	13.3	1.1–25.4	0.033

Baseline model was adjusted for age, sex, hypertension, diabetes, current smoking, total cholesterol, HDL cholesterol, LDL cholesterol, triglyceride, uric acid, and eGFR.

All estimates are provided with 95% confidence intervals.



**Figure S1.** Relationship between the severity of coronary artery calcification (CAC) and METS-VF