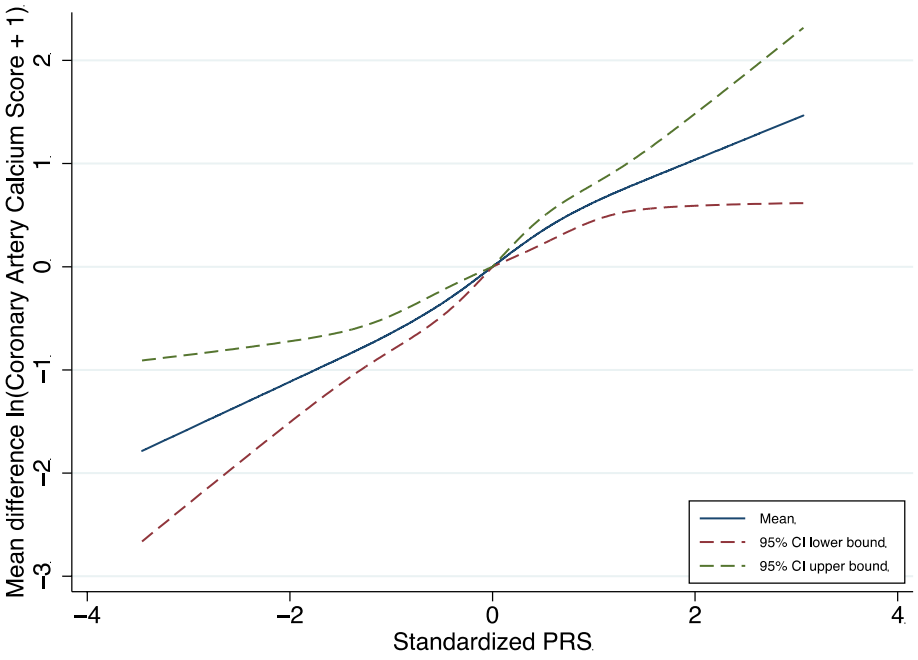
SUPPLEMENTAL MATERIAL

Table S1. Association of the PRS with coronary plaque burden and presence of plaque characteristics including adjustment for family history (n=1645 patients).

	Model 2 (excluding FHx) Effect (95% CI)	**Model 2 (including FHx) (95% CI)**
Plaque burden		
CACS	+78% (+60% - +98%, p=4.1e-26)	+75% (+57% - +94%, p=1.5e-24)
Segment stenosis score	+16% (+11% - +21%, p=2.4e-29)	+27% (+22% - +33%, p=1.4e-27)
Plaque severity		
Any plaque	1.79 (1.58 - 2.03, p=6.3e-20)	1.76 (1.55 - 2.00, p=9.2e-19)
Any obstructive plaque	1.78 (1.55 - 2.05, p=5.6e-16)	1.75 (1.52 - 2.01, p=3.8e-15)
Plaque composition		
Any soft plaque	1.40 (1.22 - 1.62, p=2.5e-6)	1.39 (1.20 - 1.60, p=6.2e-6)
Any mixed-soft plaque	1.45 (1.24 - 1.68, p=1.6e-6)	1.43 (1.23 - 1.66, p=3.7e-6)
Any mixed-calcified plaque	1.67 (1.40 - 1.98, p=7.3e-9)	1.64 (1.38 - 1.96, p=2.1e-8)
Any calcified plaque	1.69 (1.49 - 1.91, p=6.5e-17)	1.66 (1.47 - 1.88, p=5.7e-16)
Plaque localization		
Any LM plaque	1.46 (1.23 - 1.73, p=1.5e-5)	1.44 (1.21 - 1.70, p=3.2e-5)
Any LAD plaque	1.79 (1.58 - 2.03, p=3.9e-20)	1.76 (1.56 - 2.00, p=4.6e-19)
Any CX plaque	1.75 (1.51 - 2.03, p=5.1e-14)	1.71 (1.48 - 1.98, p=6.1e-13)
Any RCA plaque	1.72 (1.51 - 1.97, p=7.3e-16)	1.70 (1.49 - 1.94, p=5.9e-15)
Any proximal plaque	1.67 (1.48 - 1.89, p=1.9e-16)	1.65 (1.46 - 1.87, p=1.5e-15)
Any non-proximal plaque	1.85 (1.63 - 2.10, p=6.4e-22)	1.82 (1.60 - 2.06, p=1.8e-20)

*The effect size for continuous variables corresponds to the change in % in the geometric mean of the variable per SD increase in the PRS. Effect sizes for binary variables are reported as the OR per SD increase in the PRS. Effect sizes were adjusted for age, sex, antihypertensive treatment, lipid-lowering treatment, body mass index, symptoms, active smoking, the first four principal components of ancestry, and +/- family history of CAD in 1st degree relative <60 years. PRS: Polygenic risk score.

Figure S1. Spline representation of the effect of the standardized PRS on plaque burden.



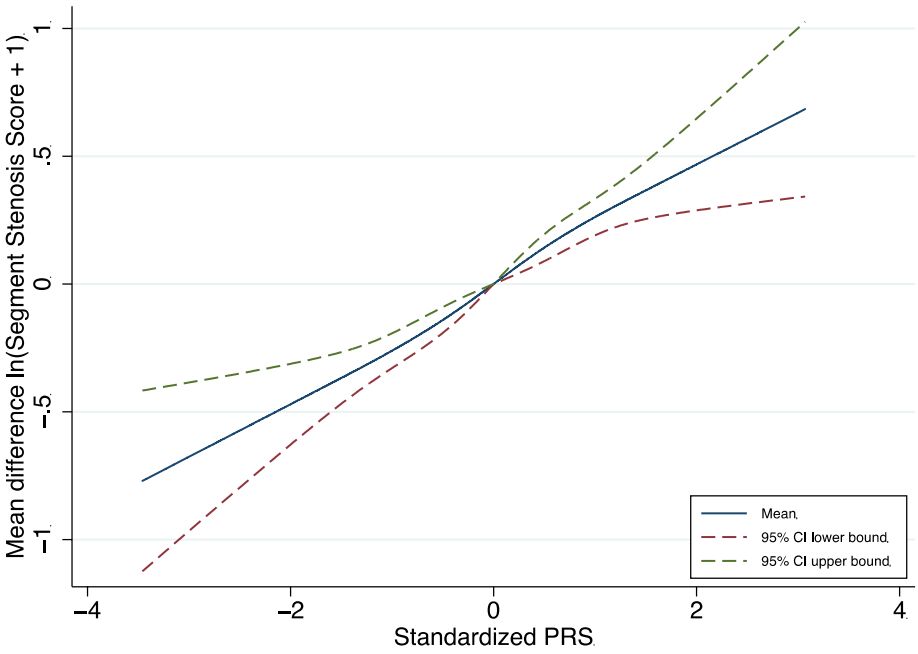
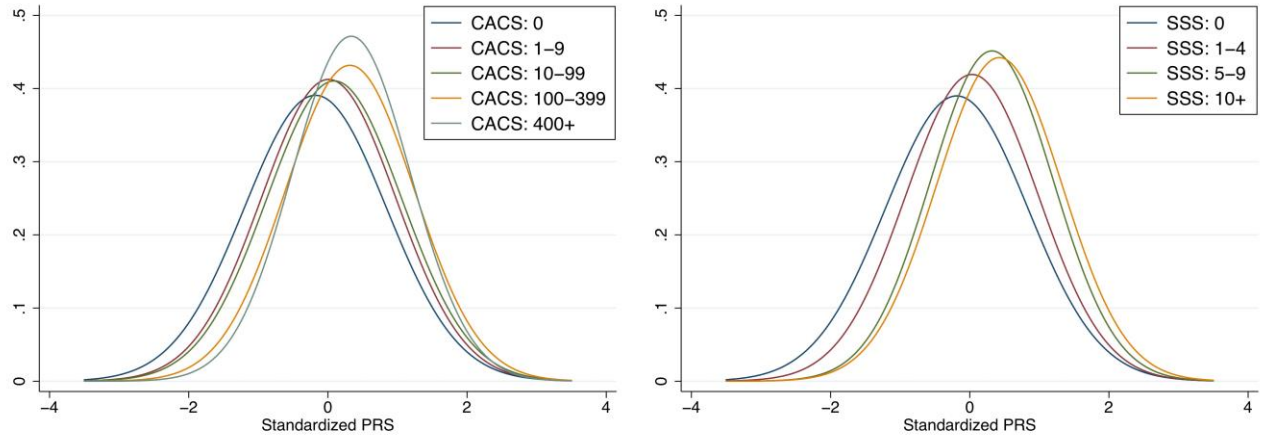
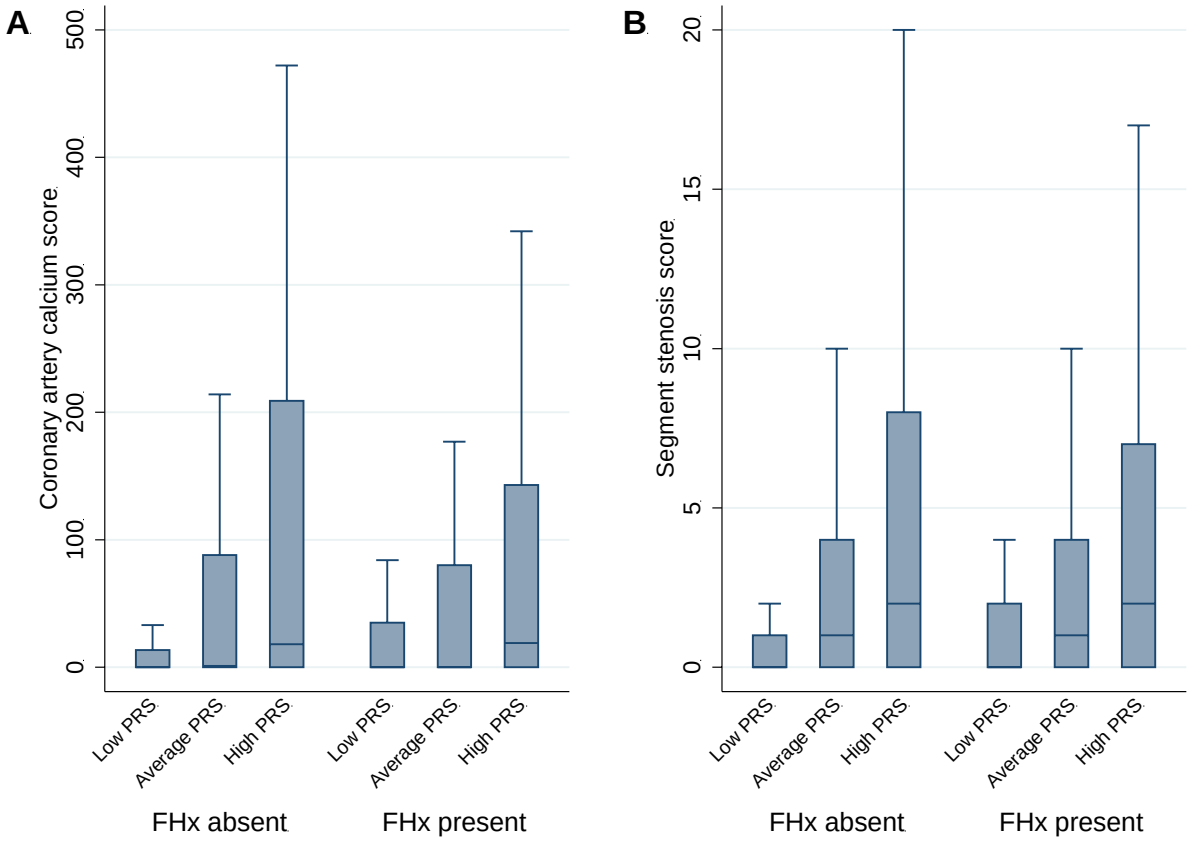


Figure S2. Distribution of the smoothed and standardized PRS according to plaque burden.



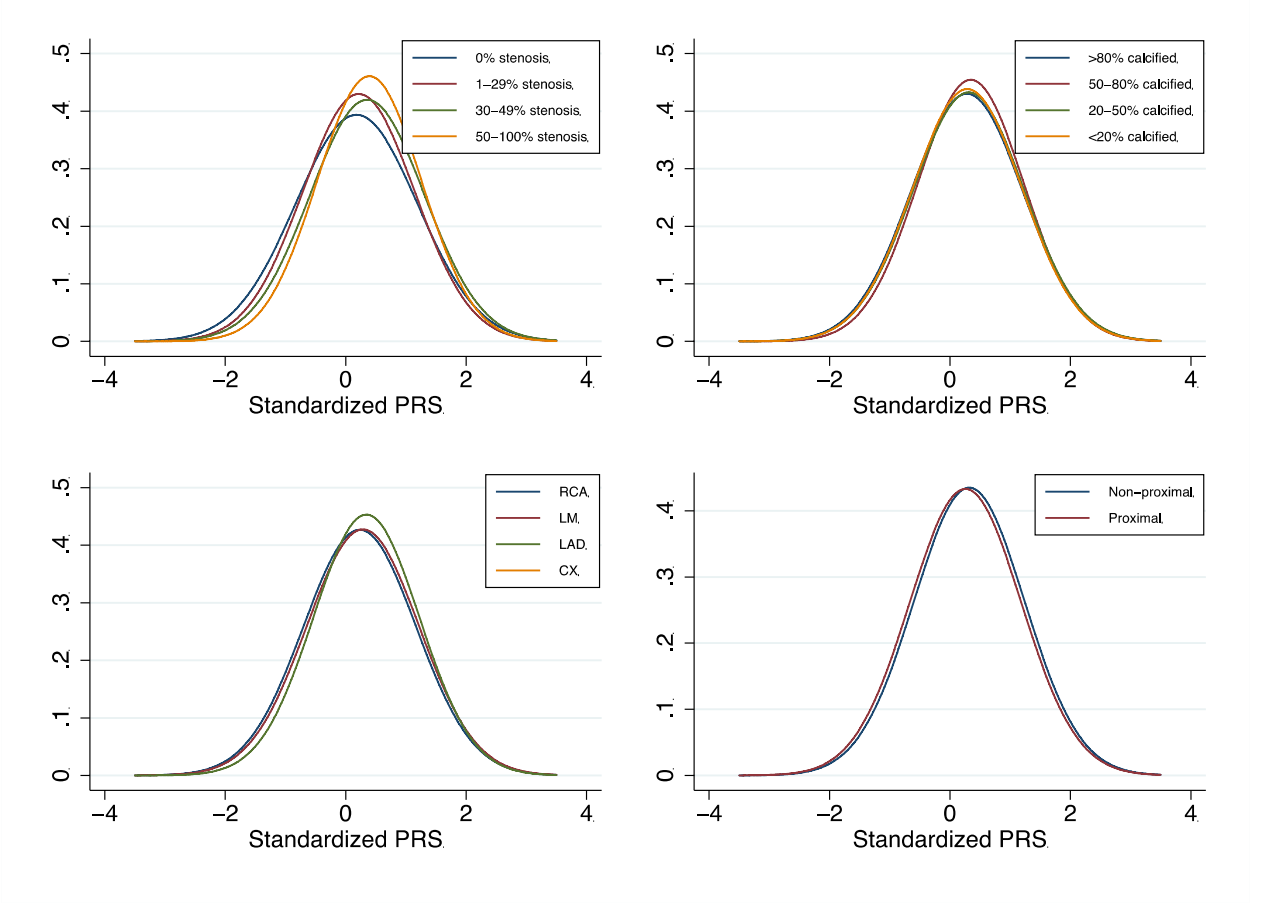
CACS: Coronary artery calcium score. PRS: Polygenic risk score. SSS: Segment stenosis score.

Figure S3. Distribution of coronary plaque burden according to the PRS stratified by FHx (n=1645 patients).



Boxes and whiskers represent the median, interquartile range, and adjacent values. Outliers were omitted from the graph for display purposes. FHx: Family history of coronary artery disease <60 years among 1st degree relatives. PRS: Polygenic risk score.

Figure S4. Distribution of the smoothed and standardized PRS according to plaque characteristics (n=3007 segments with plaque among 849 patients).



Each segment with plaque contributes to the distribution (i.e. the PRS from one individual with more than one segment with plaque contributes with the PRS for each segment with plaque). CX: Circumflexus. LAD: Left anterior descending. LM: Left main. PRS: Polygenic risk score. RCA: Right coronary artery.