Supplementary Table I: Clinical characteristics in participants with available peripheral artery tonometry data and those without peripheral artery tonometry data.

Clinical characteristics	PAT (N = 1393)	No PAT (N = 1020)	P-Value
Age (years)	56 ± 12	47 ± 10	<0.0001
Women, N (%)	701 (50.3)	560 (54.9)	0.03
Offspring, N (%)	756 (54.3)	113 (11.1)	<0.0001
Current smoking, N (%)	144 (10.3)	117 (11.5)	0.38
Heart rate (beats/min)	62 ± 10	62 ± 10	0.7739
Total/high density lipoprotein cholesterol	3.81 ± 1.26	3.79 ± 1.33	0.64
Triglycerides (mg/dl)	119 ± 74	114 ± 84	0.10
Fasting glucose (mg/dl)	101 ± 21	97 ± 20	<0.0001
Mean blood pressure (mmHg)	91 ± 10	90 ± 10	0.005
Postmenopausal, N (%)	497 (70.9)	174 (31.1)	<0.0001
Hormone replacement therapy, N (%)	72 (10.3)	47 (8.4)	0.26
Diabetes, N (%)	96 (6.9)	42 (4.1)	0.004
Hypertension treatment, N (%)	392 (28.1)	126 (12.4)	<0.0001
Lipid lowering treatment, N (%)	349 (25.1)	112 (11.0)	<0.0001
Body mass index, kg/m^2	27.9 ± 5.3	27.1 ± 5.4	0.0003
Waist circumference (cm)	99 ± 14	94 ± 15	<0.0001
Visceral adipose tissue (cm^3)	1807 ± 1001	1507 ± 920	<0.0001
Liver phantom ratio	0.36 ± 0.05	0.36 ± 0.05	0.43

PAT, Peripheral artery tonometry

Continuous variables expressed as mean ± sd, categorical variables as n (%)

Supplementary Table II: Multivariable-adjusted* partial correlations for NAFLD (LPR > 0.33 vs. LPR ≤ 0.33) with secondary vascular function measures.

Vascular function measures		Model 1: MV* adjusted		Model 2: Model 1 + BMI adjusted		Model 3: Model 2 + VAT adjusted	
	N	r	P-Value	r	P-Value	r	P-Value
Brachial artery measures†							
Baseline brachial artery diameter (mm)	2061	0.07	0.003	0.02	0.44	0.01	0.71
Baseline mean flow velocity (cm/s)	2061	0.11	<0.0001	0.08	0.0002	0.08	0.0005
Peripheral Arterial Tonometry measures							
Baseline pulse amplitude (unitless)	1393	0.13	<0.0001	0.09	0.002	0.07	0.01
Arterial tonometry measures							
Augmentation index (%)	2284	0.01	0.57	0.01	0.69	0.001	0.97

BMI, body mass index; VAT, visceral adipose tissue.
*Multivariable models adjusted for age, sex, cohort, smoking, mean arterial pressure (not included in models with mean arterial pressure as dependent variable), heart rate, walk test (before, only for brachial measures†), total/high density lipoprotein cholesterol, triglycerides, fasting glucose level, menopause, hormone replacement therapy, diabetes, hypertension treatment and lipid lowering treatment.

Supplementary Table III: Multivariable-adjusted* partial correlations for NAFLD as a dichotomous variable (LPR > 0.33 vs. LPR ≤ 0.33) or a continuous variable with vascular function measures, limited to the Third Generation Cohort.

Vascular function measures		Model 1: MV* adjusted		Model 2: Model 1 + BMI adjusted		Model 3: Model 2 + VAT adjusted	
	N	r	P-Value	r	P-Value	r	P-Value
Dichotomous fatty liver							
Brachial artery measures†							
Flow mediated dilation (%)	1458	-0.03	0.35	-0.01	0.66	-0.01	0.82
Hyperemic mean flow velocity (cm/s)	1458	-0.003	0.90	-0.01	0.78	-0.003	0.91
Peripheral Arterial Tonometry measures							
Peripheral arterial tone ratio (unitless)	637	-0.11	0.004	-0.09	0.02	-0.08	0.04
Arterial tonometry measures							
-1,000/Carotid-femoral pulse wave velocity (ms/mm)	1472	-0.002	0.93	-0.01	0.75	-0.03	0.33
Forward-wave amplitude (mm Hg)	1472	-0.01	0.60	-0.02	0.51	-0.01	0.70
Mean arterial pressure (mm Hg)	1472	0.10	0.0003	0.06	0.02	0.05	0.07
Continuous fatty liver							
Brachial artery measures†							
Flow mediated dilation (%)	1458	-0.06	0.03	-0.05	0.09	-0.04	0.14
Hyperemic mean flow velocity (cm/s)	1458	-0.02	0.37	-0.03	0.29	-0.02	0.39
Peripheral Arterial Tonometry measures							
Peripheral arterial tone ratio (unitless)	637	-0.13	0.002	-0.11	0.006	-0.09	0.02
Arterial tonometry measures							
-1,000/Carotid-femoral pulse wave velocity (ms/mm)	1472	0.001	0.98	-0.01	0.86	-0.03	0.29
Forward-wave amplitude (mm Hg)	1472	-0.02	0.39	-0.03	0.33	-0.02	0.54
Mean arterial pressure (mm Hg)	1472	0.06	0.02	0.04	0.18	0.01	0.60

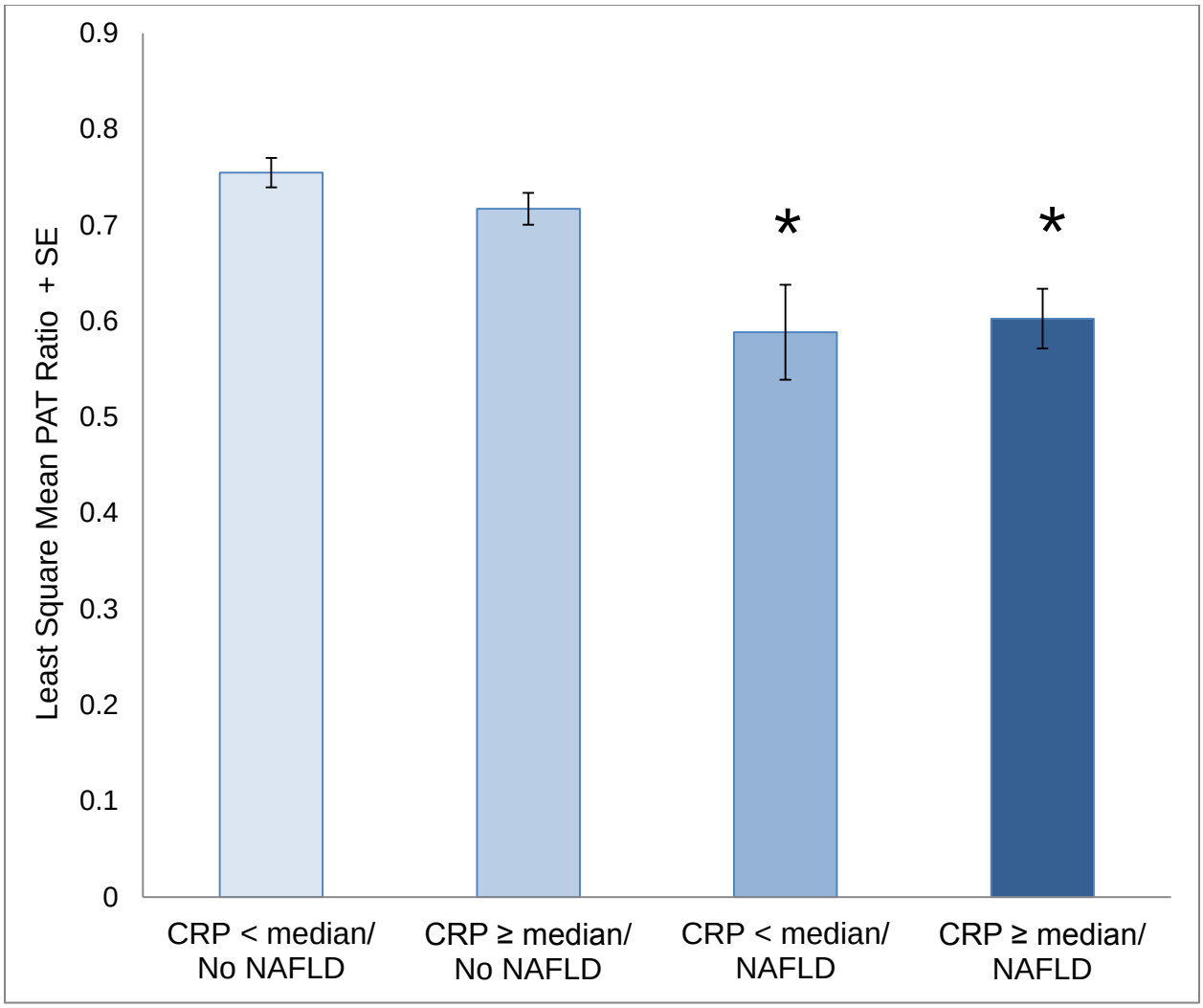
BMI, body mass index; VAT, visceral adipose tissue.
*Multivariable models adjusted for age, sex, cohort, smoking, mean arterial pressure (not included in models with mean arterial pressure as dependent variable), heart rate, walk test (before, only for brachial measures†), total/high density lipoprotein cholesterol, triglycerides, fasting glucose level, menopause, hormone replacement therapy, diabetes, hypertension treatment and lipid lowering treatment.

Supplementary Table IV: Multivariable-adjusted* partial correlations for NAFLD as a dichotomous variable (LPR > 0.33 vs. LPR ≤ 0.33) or a continuous variable with vascular function measures in participants with all three vascular function measures.

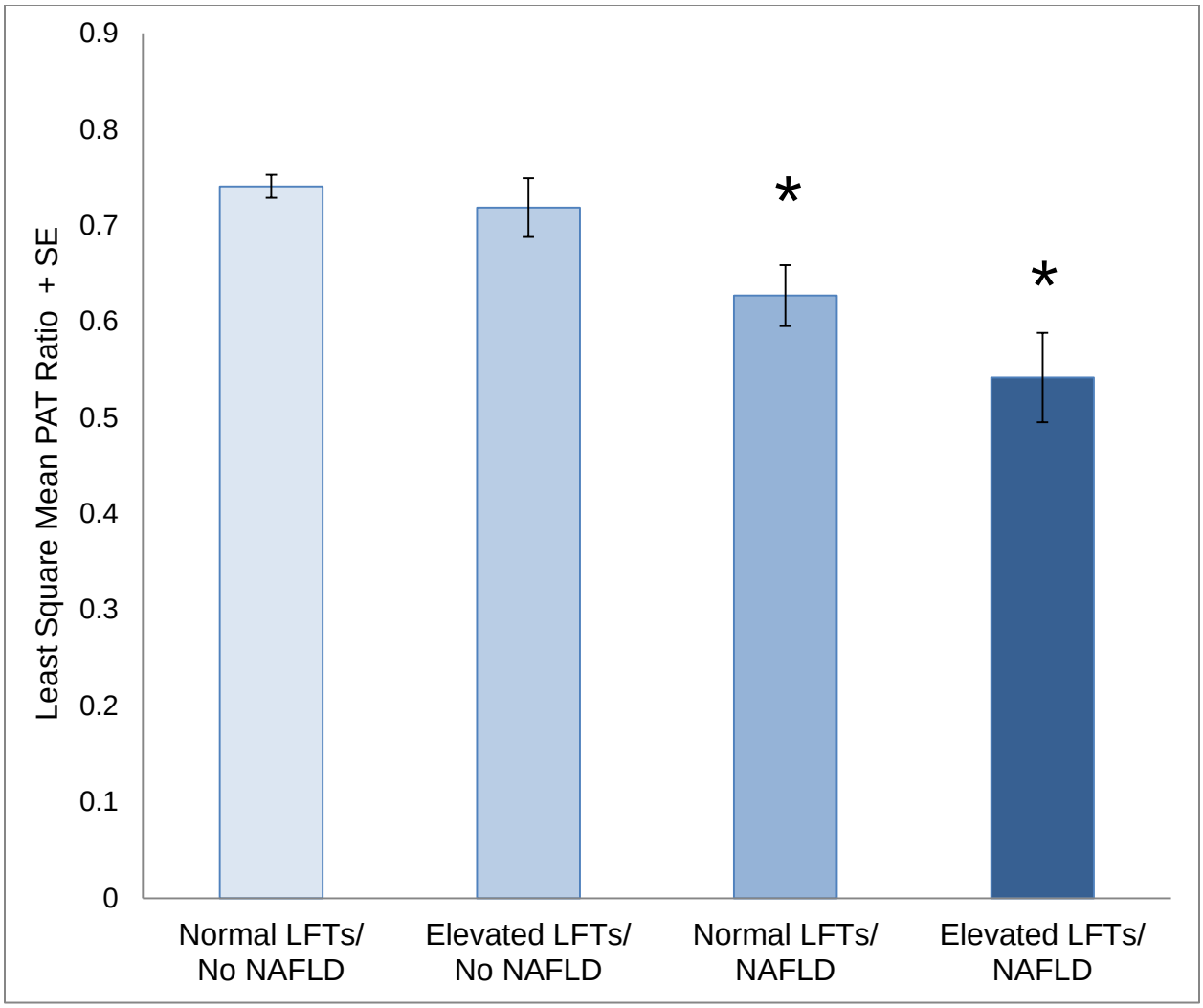
Vascular function measures		Model 1: MV* adjusted		Model 2: Model 1 + BMI adjusted		Model 3: Model 2 + VAT adjusted	
	N	r	P-Value	r	P-Value	r	P-Value
Dichotomous fatty liver							
Brachial artery measures†							
Flow-mediated dilation (%)	1005	-0.04	0.25	-0.03	0.34	-0.03	0.35
Peripheral Arterial Tonometry measures							
Peripheral arterial tone ratio (unitless)	1005	-0.13	<0.0001	-0.10	0.001	-0.09	0.003
Arterial tonometry measures							
-1,000/Carotid-femoral pulse wave velocity (ms/mm) †	1005	0.02	0.46	0.01	0.79	-0.004	0.90
-1,000/Carotid-femoral pulse wave velocity (ms/mm)	1005	0.01	0.79	0.001	0.97	-0.01	0.76
Mean arterial pressure (mm Hg)	1005	0.05	0.13	0.02	0.52	0.01	0.72
Mean arterial pressure (mm Hg) ǂ	1005	0.04	0.18	0.02	0.56	0.01	0.67
Continuous fatty liver							
Brachial artery measures†							
Flow-mediated dilation (%)	1005	-0.06	0.08	-0.05	0.12	-0.05	0.12
Peripheral Arterial Tonometry measures							
Peripheral arterial tone ratio (unitless)	1005	-0.12	<0.0001	-0.10	0.001	-0.09	0.004
Arterial tonometry measures							
-1,000/Carotid-femoral pulse wave velocity (ms/mm) †	1005	0.03	0.31	0.02	0.55	0.002	0.95
-1,000/Carotid-femoral pulse wave velocity (ms/mm)	1005	0.02	0.50	0.01	0.64	0.0002	0.99
Mean arterial pressure (mm Hg)	1005	0.04	0.27	-0.01	0.75	-0.003	0.93
Mean arterial pressure (mm Hg) ǂ	1005	0.03	0.43	-0.003	0.92	-0.004	0.91

NAFLD, Non-alcoholic fatty liver disease; BMI, body mass index; VAT, visceral adipose tissue.
*Multivariable models adjusted for age, sex, cohort, smoking, mean arterial pressure (not included in models with mean arterial pressure or CFPWV as dependent variable, unless noted), heart rate, walk test (before, only for brachial measures†), total/high density lipoprotein cholesterol, triglycerides, fasting glucose level, menopause, hormone replacement therapy, diabetes, hypertension treatment and lipid lowering treatment.

†not adjusted on mean arterial pressure; ‡additional adjusted on carotid femoral pulse wave velocity.



Supplementary Figure I. Bar chart depicting the multivariable adjusted least square means of peripheral arterial tone ratio + standard error (SE) among those with/without NAFLD and with/without C-reactive protein (CRP) > median. No NAFLD represents a normal Liver Phantom Ratio (LPR) (LPR > 0.33) and NAFLD represents an abnormal LPR (LPR ≤ 0.33). PAT ratio CRP > median/No NAFLD vs CRP ≤ median/No NAFLD p=0.36; CRP ≤ median/NAFLD vs CRP ≤ median/No NAFLD p=0.008; PAT ratio CRP > median/NAFLD vs CRP ≤ median/No NAFLD p<0.0001; PAT ratio CRP ≤ median/NAFLD vs CRP > median /NAFLD p=0.99.



Supplementary Figure II. Bar chart depicting the multivariable adjusted least square means of peripheral arterial tone ratio + standard error (SE) among those with/without NAFLD and with/without elevated liver function tests (LFTs). Elevated LFTs represents presence of serum alanine aminotransferase (ALT) or aspartate aminotransferase (AST) above the upper limit of normal. No NAFLD represents a normal Liver Phantom Ratio (LPR) (LPR > 0.33) and NAFLD represents an abnormal LPR (LPR ≤ 0.33). PAT ratio elevated LFTs/No NAFLD vs normal LFTs/No NAFLD p=0.91; normal LFTs/NAFLD vs normal LFTs/No NAFLD p=0.005; PAT ratio elevated LFTs/NAFLD vs normal LFTs/No NAFLD p=0.0003; PAT ratio normal LFTs/NAFLD vs elevated LFTs/NAFLD p=0.41.