SUPPLEMENTAL MATERIAL

Online Supplemental Table 1. Left Ventricular Concentricity by Low vs. High Waist Circumference and Waist-Hip Ratio among Obese Participants (BMI ≥ 30 kg/m^2)

	Left Ventricular Concentricity (g/mL)	
	Median (IQR)	*P-value*
Overall Population		
Waist Circumference ≤ median (N=591)	1.57 (1.38, 1.79)	<0.0001
Waist Circumference > median (N=599)	1.68 (1.47, 1.94)	
Waist-Hip Ratio ≤ median (N=594)	1.54 (1.37, 1.76)	<0.0001
Waist-Hip Ratio > median (N=595)	1.70 (1.49, 1.96)	
Men		
Waist Circumference ≤ median (N=217)	1.70 (1.52, 1.92)	0.0001
Waist Circumference > median (N=229)	1.81 (1.61, 2.10)	
Waist-Hip Ratio ≤ median (N=222)	1.69 (1.50, 1.92)	<0.0001
Waist-Hip Ratio > median (N=223)	1.82 (1.62, 2.11)	
Women		
Waist Circumference ≤ median (N=374)	1.51 (1.33, 1.69)	<0.0001
Waist Circumference > median (N=370)	1.57 (1.39, 1.85)	
Waist-Hip Ratio ≤ median (N=372)	1.47 (1.32, 1.64)	<0.0001
Waist-Hip Ratio > median (N=372)	1.62 (1.41, 1.88)	

P-value for ≤ median vs. >median for each pair.
Abbreviations: BMI= body mass index; IQR= interquartile range

Online Supplemental Table 2. Sex-Specific Multivariable-Adjusted Linear Regression Models of Relation of Adiposity Phenotypes to Cardiac Structure and Function (Women N=1485, Men N=1225)

	LV Mass		LV EDV		Concentricity		LV Wall Thickness	
Visceral Fat	*β*	*P-value*	*β*	*P-value*	*β*	*P-value*	*β*	*P-value*
Men	-0.05	0.19	-0.23	<0.0001	0.21	<0.0001	0.10	0.01
Women	0.02	0.59	-0.10	0.01	0.11	0.007	0.06	0.09
Abdominal Subcutaneous Fat								
Men	0.04	0.40	-0.14	0.006	0.19	0.0004	0.13	0.007
Women	-0.02	0.68	-0.16	0.0002	0.16	0.001	0.12	0.006
Lower Body Fat								
Men	0.02	0.72	0.20	0.0002	-0.18	0.0007	-0.11	0.02
Women	-0.11	0.02	0.19	<0.0001	-0.31	<0.0001	-0.22	<0.0001

Models constructed with cardiac measures as dependent variables and fat parameters as independent variables; β coefficient is per 1-SD of the fat parameter.

Model is adjusted for age, sex, African-American race, hypertension, diabetes, hyperlipidemia, exercise, alcohol use, cardiovascular disease, smoking, lean mass, visceral fat, abdominal subcutaneous fat, and lower body fat mass.

Online Supplemental Table 3. Multivariable-Adjusted Linear Regression Models of Relation of Adiposity Phenotypes to Cardiac Structure and Function with Additional Covariate Adjustments

	LV Mass		LV EDV		Concentricity		LV Wall Thickness	
	β	P-value	β	P-value	β	P-value	β	P-value
Visceral Fat								
Model 1	-0.01	0.55	-0.19	<0.0001	0.19	<0.0001	0.08	0.0006
Model 2	0.01	0.73	-0.15	<0.0001	0.17	<0.0001	0.09	0.0008
Abdominal Subcutaneous Fat								
Model 1	0.003	0.89	-0.11	0.0004	0.15	<0.0001	0.11	0.0001
Model 2	0.01	0.61	-0.06	0.11	0.11	0.005	0.09	0.004
Lower Body Fat								
Model 1	-0.06	0.03	0.18	<0.0001	-0.25	<0.0001	-0.16	<0.0001
Model 2	-0.08	0.01	0.20	<0.0001	-0.32	<0.0001	-0.20	<0.0001

Models constructed with cardiac measures as dependent variables and fat parameters as independent variables; β coefficient is per 1-SD of the fat parameter.

Model 1 is adjusted for age, sex, African-American race, systolic blood pressure, antihypertensive medication use, diabetes, hyperlipidemia, exercise, alcohol use, cardiovascular disease, smoking, lean mass, visceral fat, abdominal subcutaneous fat, and lower body fat mass.

Model 2 is adjusted for all covariates from Model 1 plus log-leptin, log-adiponectin, log-C-reactive protein, and log-interleukin-6.