

**Supplemental Tables:**

**Table S1.** Multivariate adjusted (including adjustments for the use of angiotensin-converting enzyme inhibitors [ACEI] and beta adrenergic receptor blockers [ $\beta$ -blockers]) left ventricular (LV) systolic function in participants with or without increases in left ventricular mass (LVM) indexed to height<sup>2.7</sup> (LVMI) or inappropriate increases in LVM (LVM<sub>inappr</sub>).

	<u>LVM<sub>inappr</sub></u>		<u>LVMI</u>	
	>150%	≤150%	>51 g/m <sup>2.7</sup>	≤51 g/m <sup>2.7</sup>
Sample size	116	510	136	490
Adjusted <sup>†</sup> LV ejection fraction (%)	62.4±7.8	67.9±7.5*	66.5±8.1	67.0±7.8
Adjusted <sup>†</sup> LV FS <sub>mid</sub> (%)	20.9±5.4	23.5±5.2*	23.1±5.6	23.0±5.3

FS<sub>mid</sub>, midwall fractional shortening. \*p<0.0001 vs LVM<sub>inappr</sub> ≤150% or LVMI≤51 g/m<sup>2.7</sup>.<sup>†</sup>Multivariate adjustments are for age, sex, LV systolic stress, HbA1c, pulse rate, the use of ACEIs and  $\beta$ -blockers, regular smoking, regular alcohol intake, waist circumference. Probability values are further adjusted for non-independence of family members.

**Table S2.** Multivariate adjusted (including adjustments for the use of angiotensin-converting enzyme inhibitors [ACEI] and beta adrenergic receptor blockers [ $\beta$ -blockers]) relationships between indexes of left ventricular mass (LVM) and systolic function with LVM expressed as an inappropriate increase in LVM ( $LVM_{inappr}$ ), absolute LVM or LVM indexed to height<sup>2.7</sup> (LVMI)(n=626).

	Partial r (CI)	p value	Partial r (CI)	p value	Partial r (CI)	p value
<u>Adjustments</u>	confounders <sup>†</sup>		confounders <sup>†</sup> + LVM		confounders <sup>†</sup> + LVMI	
<u>Left ventricular ejection fraction versus</u>						
$LVM_{inappr}$	-0.41 (-0.47 to -0.34)	<0.0001	-0.52* (-0.57 to -0.46)	<0.0001	-0.52 (-0.57 to -0.46)	<0.0001
LVM	-0.08 (-0.16 to -0.004)	=0.040	-	-	-	-
LVMI	-0.06 (-0.14 to 0.02)	=0.12	-	-	-	-
<u>Left ventricular midwall fractional shortening versus</u>						
$LVM_{inappr}$	-0.29 (-0.36 to -0.21)	<0.0001	-0.42* (-0.48 to -0.35)	<0.0001	-0.40 (-0.46 to -0.33)	<0.0001
LVM	-0.01 (-0.09 to 0.07)	=0.80	-	-	-	-
LVMI	-0.02 (-0.10 to 0.06)	=0.66	-	-	-	-

\*p<0.0001 vs correlation coefficients for LVM and LVMI. CI, confidence interval. †Adjustments are for age, sex, LV systolic stress, HbA1c, pulse rate, the use of ACEIs and  $\beta$ -blockers, regular smoking, regular alcohol intake, waist circumference and body height (when assessing relations with LVM). Probability values are further adjusted for non-independence of family member.