



Supplementary material

The Role of Sex and Domestic Physical Activity on the Metabolically Healthy and Unhealthy Obesity. The HERMEX Study

SUPPLEMENTARY MATERIAL

Supplementary Table

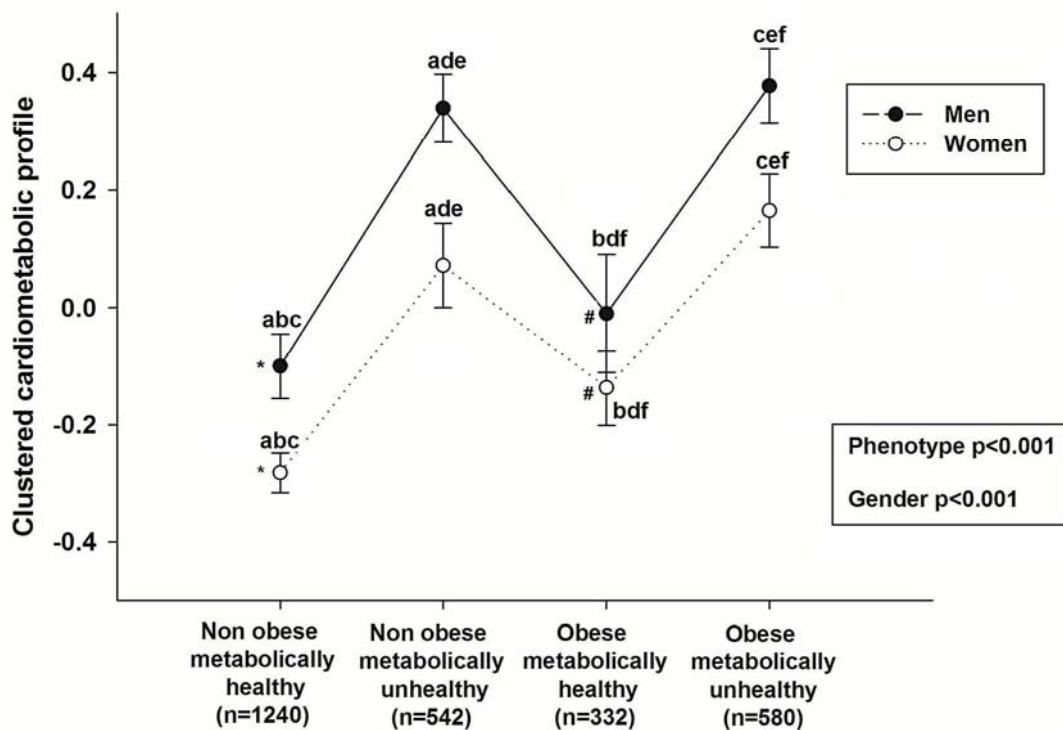
Characteristics of the Study Participants by Sex

	All	Men	Women	Sex <i>P</i>
	(n = 2695)	(n = 1228, 46%)	(n = 1467, 54%)	
	Mean (SD)	Mean (SD)	Mean (SD)	
Age, y	50.4 (14.5)	50.2 (14.2)	50.5 (14.7)	.560
Height, m	161.9 (9.4)	168.6 (7.5)	156.4 (7.0)	< .001
Weight, Kg	74.7 (15.6)	82.6 (14.5)	68.1 (13.1)	< .001
Body mass index, kg/m ²	28.5 (5.3)	29.1 (4.7)	27.9 (5.8)	< .001
Weight status (NW/OW/OB), %	27/39/34	17/47/36	35/33/32	< .001
Smoking, n (%)	835 (30.9)	463 (37.7)	372 (25.4)	< .001
Alcohol consumption, ml/day	60.9 (120.4)	120.0 (153.9)	11.5 (38.2)	< .001
Metabolic syndrome markers				
HDL-cholesterol, mg/dL	56.8 (14.4)	51.9 (13.2)	60.8 (14.0)	< .001
Triglycerides, mg/dL	111.8 (77.1)	129.1 (92.1)	97.3 (57.9)	< .001
Glucose, mg/dL	103.3 (24.8)	107.2 (26.6)	100.1 (22.6)	< .001
Systolic blood pressure, mm/Hg	123.0 (21.2)	128.9 (18.3)	118.1 (22.1)	< .001

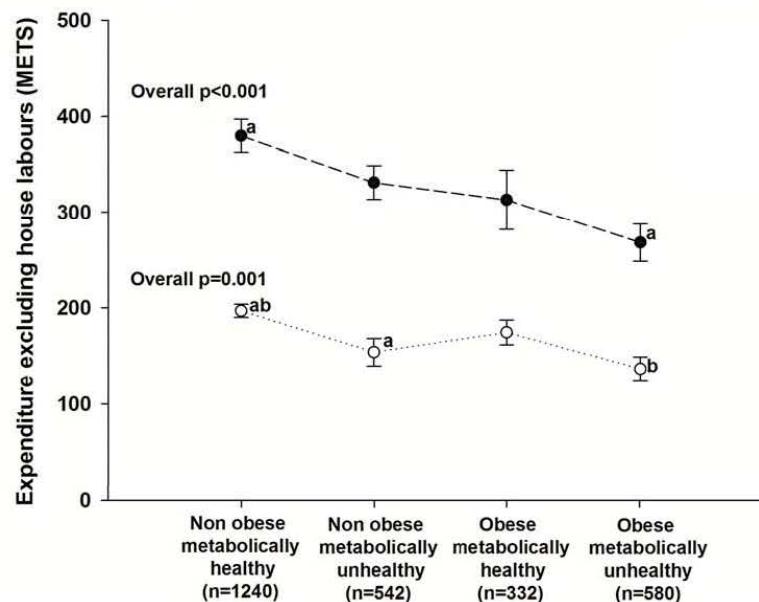
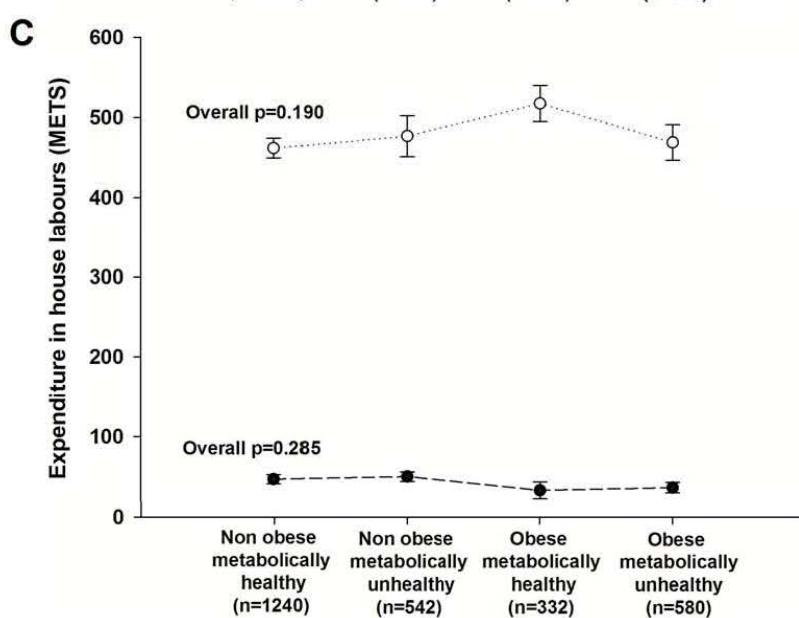
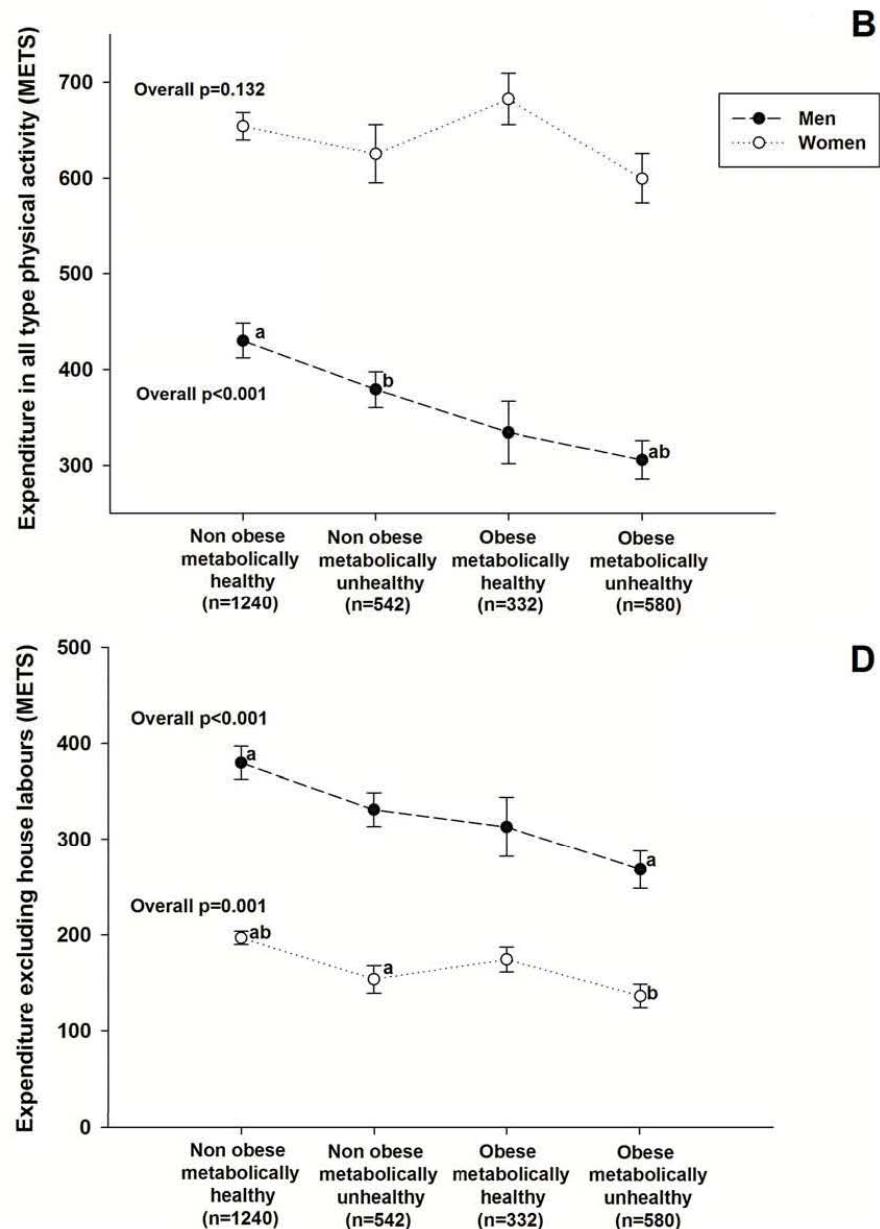
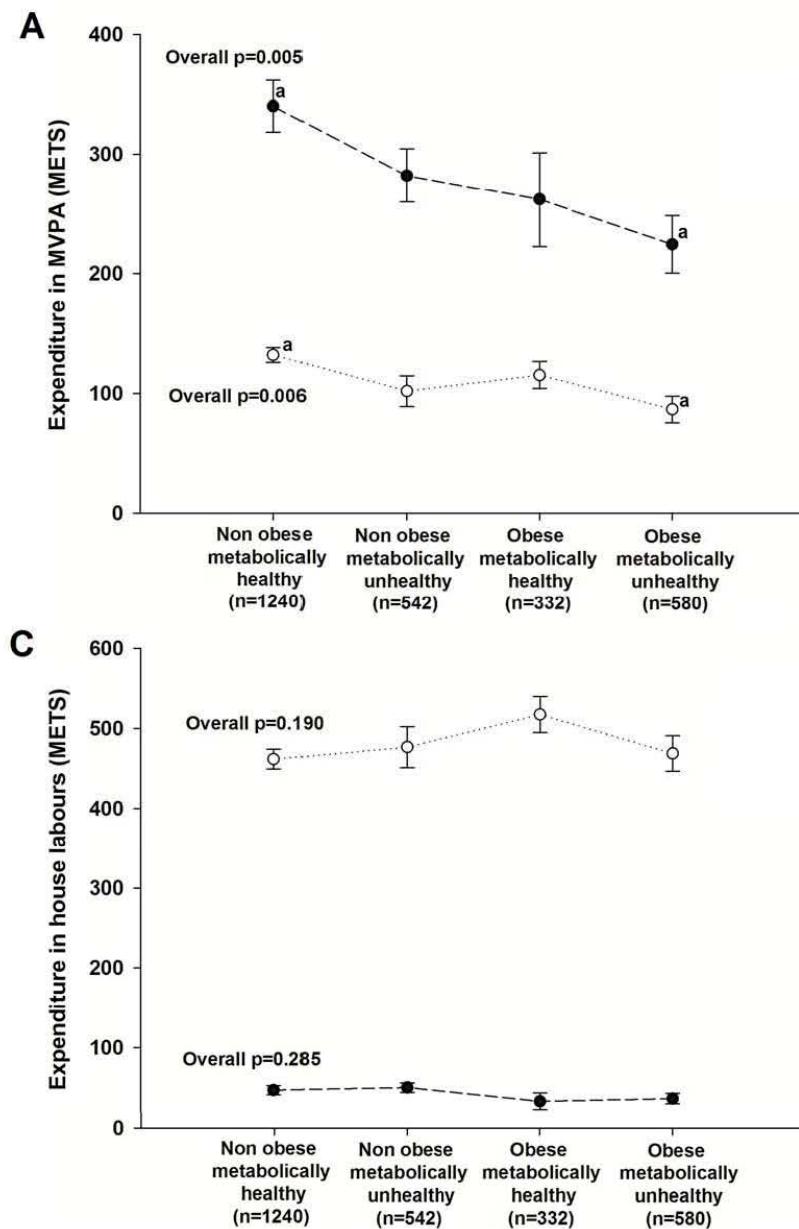
<i>Diastolic blood pressure, mm/Hg</i>	74.1 (10.5)	76.6 (9.9)	72.1 (10.6)	< .001
<i>Waist circumference, cm</i>	97.2 (13.6)	100.0 (11.8)	94.7 (14.4)	< .001
Physical activity				
<i>MVPA (> 4 METs)</i>	193.8 (325.9)	284.4 (430.0)	118.1 (167.0)	< .001
<i>Total expenditure in PA#, METs/wk</i>	521.1 (401.4)	372.3 (359.0)	645.6 (392.8)	< .001
<i>Meet PA guidelines (> 500 METs/wk), %</i>	44.7	28.9	58.0	< .001
<i>Low intensity (< 3 METs), METs/wk</i>	60.3 (94.8)	61.4 (114.2)	59.3 (74.8)	.587
<i>Medium intensity (3-6 METs), METs/wk</i>	105.4 (256.1)	148.7 (340.2)	69.2 (144.2)	< .001
<i>High intensity (> 6 METs), METs/wk</i>	88.4 (191.6)	135.6 (261.2)	48.9 (83.3)	< .001
Educational level				
	n (%)	n (%)	n (%)	
<i>No studies</i>	319 (11.9)	115 (9.4)	204 (14.0)	
<i>Primary school</i>	1442 (53.7)	688 (56.4)	752 (51.5)	< .001
<i>High school</i>	577 (21.5)	280 (23.0)	296 (20.3)	
<i>University degree</i>	345 (12.1)	137 (11.3)	208 (14.3)	
Occupational status				
<i>Working</i>	1323 (49.1)	812 (66.2)	510 (34.8)	
<i>Housewife</i>	797 (29.6)	0 (0)	797 (54.3)	< .001
<i>Retired</i>	327 (12.1)	282 (23.0)	45 (3.1)	

<i>Unemployed</i>	167 (6.2)	83 (6.8)	84 (5.7)
<i>Sick leave</i>	31 (1.1)	22 (1.8)	8 (0.5)
<i>Student</i>	14 (0.5)	4 (0.3)	10 (0.7)
<i>Permanent disability</i>	35 (1.3)	22 (1.8)	13 (0.9)
Metabolic phenotype			
<i>Metabolically healthy but obese</i>	332 (12.3)	120 (9.8)	212 (14.5)
			< .001

HDL, high-density lipoprotein; MET, Metabolic Equivalent of Task; MVPA, moderate-vigorous physical activity; NW, normal weight; OB, obese; OW, overweight; PA, physical activity; SD, standard deviation; wk, week. #, including domestic physical activity.



Supplementary Figure 1. Clustered cardiometabolic risk profile across body-size phenotypes stratified by sex. Dots represent mean and standard error. ^{a,b,c,d,e,f}Letters indicate a pairwise significant difference ($P < .05$) for each gender between phenotype groups with the same letter. *# symbols indicate sex differences ($P < .05$). The model (1-way analysis of covariance) was adjusted for age, educational status, smoking, and alcohol consumption. The Bonferroni correction for multiple comparisons was applied to analyze pairwise differences. The clustered cardiometabolic risk profile was computed as the average of the standardized scores [(value-mean)/standard deviation] of lipid, glycemic, and vascular profile plus plasma high-sensitivity C-reactive protein.



Supplementary Figure 2. Total expenditure in moderate-vigorous physical activity (A), all-type physical activity (including domestic physical activity) (B), domestic physical activity (C), and all-type physical activity excluding domestic physical activity (D) by phenotype groups and sex. METS, metabolic equivalents; MVPA, moderate-vigorous physical activity. MVPA was defined as intensity > 4 METS. Dots represent mean and standard error.^{a,b} Letters indicate a pairwise significant difference ($P < .05$) for each sex between phenotype groups with the same letter. The model was adjusted for age, educational status, smoking, and alcohol consumption. The Bonferroni correction for multiple comparisons was applied to analyze pairwise differences.