

Table S1: Baseline characteristics of the obese subgroup without and with OSA

Variable	No OSA	OSA	P
	N= 34	N= 49	
Age (years)	53.8 ± 3.8	56.9 ± 5.8	0.007
BMI (kg/m²)	32.9 ± 2.8	34.6± 3.0	0.012
Diabetes mellitus n (%)	10(29.4%)	10(20.4%)	0.346
Physical activity n (%)	25 (73.5%)	38 (77.5%)	0.674
Hypertension n (%)	19(56.0%)	39(79.6%)	0.021

Data are presented as median (interquartile range), mean(± Standard Deviation), or No. (%).
Abbreviations: BMI: body mass index. OSA: obstructive sleep apnea.

Table S2: Multivariate logistic regression analysis relating the age predicted peak VO₂ below 85% with OSA and obesity.

Variable	OR	CI (95%)	p
Age	0.95	0.88-1.02	0.19
Hypertension	1.35	0.61-3.01	0.45
Diabetes	1.43	0.63-3.24	0.39
Physical activity	1.038	0.45-2.37	0.93
Interaction term	7.15	3.31-15.41	<0.001
Constant	1.34	0.03-71.89	0.89

Abbreviations: OSA: obstructive sleep apnea. Interaction term merging the two variables (BMI> 30 Kgm² and OSA> 5 e/h)