Supplemental Table 4. Effects of body mass index (BMI), age and of their interaction on N-acylethanolamine (NAE) circulating levels and their ratios in the male cohort. Data are shown as P values (sign of the coefficients) of the evaluated effects: non italic data show first order (main) effects; italic data show second order effects (i.e., the interactions between the two main effects). Significant P values are reported in bold

NAE	Factors	Cohort	Unadjusted effects‡	Effects evaluated after adjusting for each metabolic parameter∞								
				Waist circumference	SBP	DBP	Glucose	Insulin	HOMA-IR	Total Cholesterol	HDL-cholesterol	Triglycerides
AEA	Effect of BMI§	Overall	**<0.001 (+)**	0.942 (+)	0.069 (+)	0.527 (+)	**0.032 (+)**	0.489 (+)	0.068 (+)	0.546 (+)	0.705 (+)	0.176 (+)
	Effect of age*	Overall	0.474 (-)	0.472 (+)	0.054 (-)	0.960 (-)	**0.004 (-)**	0.413 (+)	0.641 (-)	0.581 (+)	0.157 (-)	0.284 (-)
		- NW	0.987 (+)	0.452 (-)	0.323 (-)	0.113 (+)	0.776 (-)	0.071 (+)	0.809 (+)	0.082 (-)	0.877 (+)	0.909 (-)
		- OW	0.725 (-)	0.997 (-)	0.250 (-)	0.819 (-)	0.674 (-)	0.552 (+)	0.850 (+)	0.957 (-)	0.917 (-)	0.200 (-)
		- OB	0.487 (-)	0.355 (+)	0.201 (-)	0.636 (-)	**0.003 (-)**	0.892 (+)	0.565 (-)	0.261 (+)	0.096 (-)	0.463 (-)
	Int. BMI x age§			*0.522 (-)*	*0.286 (+)*	*0.471 (-)*	*0.340 (-)*	***0.008 (-)***	*0.695 (-)*	*0.544 (-)*	*0.121 (+)*	*0.111 (-)*	*0.512 (-)*
PEA	Effect of BMI§	Overall	**<0.001 (+)**	0.705 (+)	0.303 (+)	0.936 (-)	**0.007 (+)**	0.761 (+)	0.221 (+)	0.731 (+)	0.671 (+)	0.546 (+)
	Effect of age*	Overall	0.657 (-)	0.572 (+)	0.106 (-)	0.127 (+)	**0.002 (-)**	0.124 (+)	0.856 (+)	0.290 (+)	0.188 (-)	0.690 (+)
		- NW	0.372 (+)	0.733 (-)	0.228 (-)	**0.002 (+)**	0.303 (+)	0.057 (+)	0.247 (+)	0.267 (-)	0.093 (+)	0.379 (+)
		- OW	0.828 (-)	0.250 (+)	0.600 (+)	0.188 (+)	0.965 (-)	0.178 (+)	0.378 (+)	0.183 (+)	0.651 (-)	0.786 (+)
		- OB	0.406 (-)	0.680 (+)	0.084 (-)	0.961 (+)	**<0.001 (-)**	0.537 (+)	0.818 (-)	0.334 (+)	**0.039 (-)**	0.964 (+)
	Int. BMI x age§			*0.261 (-)*	*0.633 (+)*	*0.300 (-)*	*0.336 (-)*	***<0.001 (-)***	*0.968 (+)*	*0.677 (-)*	*0.219 (+)*	***0.011 (-)***	*0.803 (-)*
OEA	Effect of BMI§	Overall	**0.022 (+)**	0.759 (+)	0.148 (+)	0.635 (+)	0.099 (+)	0.931 (-)	0.262 (+)	0.413 (+)	0.498 (+)	0.784 (+)
	Effect of age*	Overall	0.340 (+)	0.571 (+)	0.119 (-)	0.362 (+)	0.073 (-)	**0.044 (+)**	0.444 (+)	0.404 (+)	0.093 (-)	0.678 (+)
		- NW	0.969 (+)	0.797 (+)	0.149 (-)	**0.022 (+)**	0.360 (+)	**0.007 (+)**	0.819 (+)	0.064 (-)	0.602 (-)	0.093 (+)
		- OW	0.109 (+)	0.135 (+)	0.978 (+)	0.601 (+)	0.443 (+)	0.052 (+)	**0.016 (+)**	0.467 (+)	0.098 (-)	0.646 (+)
		- OB	0.728 (+)	0.839 (+)	0.207 (-)	0.978 (+)	**0.013 (-)**	0.502 (+)	0.888 (+)	0.245 (+)	0.289 (+)	0.779 (-)
	Int. BMI x age§			*0.763 (+)*	*0.888 (+)*	*0.614 (-)*	*0.480 (-)*	***0.008 (-)***	*0.881 (-)*	*0.919 (+)*	*0.106 (+)*	*0.441 (-)*	*0.410 (-)*
PEA/AEA	Effect of BMI§	Overall	**0.032 (-)**	0.700 (+)	0.114 (-)	0.253 (-)	0.893 (+)	0.492 (-)	0.198 (-)	0.579 (-)	0.925 (-)	0.182 (-)
	Effect of age*	Overall	0.589 (+)	0.703 (-)	0.341 (+)	**0.033 (+)**	0.572 (+)	0.436 (+)	0.307 (+)	0.555 (+)	0.580 (+)	**0.020 (+)**
		- NW	0.244 (+)	0.429 (+)	0.978 (-)	0.110 (+)	0.079 (+)	0.750 (-)	0.249 (+)	0.151 (+)	**0.037 (+)**	0.161 (+)
		- OW	0.823 (+)	0.135 (+)	**0.012 (+)**	**0.032 (+)**	0.551 (+)	0.409 (+)	0.405 (+)	**0.045 (+)**	0.689 (-)	**0.016 (+)**
		- OB	0.990 (+)	0.362 (-)	0.805 (-)	0.392 (+)	0.852 (-)	0.521 (+)	0.507 (+)	0.590 (-)	0.925 (-)	0.187 (+)
	Int. BMI x age§			*0.639 (-)*	*0.288 (-)*	*0.834 (-)*	*0.762 (+)*	*0.430 (-)*	*0.480 (+)*	*0.641 (+)*	*0.364 (-)*	*0.361 (-)*	*0.434 (+)*
OEA/AEA	Effect of BMI§	Overall	**0.017 (-)**	0.629 (+)	0.762 (-)	0.897 (-)	0.653 (-)	0.269 (-)	0.329 (-)	0.598 (+)	0.628 (+)	0.175 (-)
	Effect of age*	Overall	**0.014 (+)**	0.833 (-)	0.833 (+)	0.141 (+)	0.278 (+)	0.067 (+)	0.066 (+)	0.679 (+)	0.542 (-)	**0.041 (+)**
		- NW	0.920 (-)	0.139 (+)	0.371 (-)	0.171 (+)	0.106 (+)	0.174 (+)	0.868 (-)	0.648 (-)	0.283 (-)	**0.007 (+)**
		- OW	**0.006 (+)**	**0.045 (+)**	0.129 (+)	0.344 (+)	0.134 (+)	0.076 (+)	**0.003 (+)**	0.311 (+)	**0.024 (-)**	**0.042 (+)**
		- OB	0.097 (+)	0.315 (-)	0.867 (-)	0.435 (+)	0.837 (+)	0.343 (+)	0.241 (+)	0.848 (+)	0.498 (+)	0.505 (+)
	Int. BMI x age§			*0.121 (+)*	*0.192 (-)*	*0.810 (+)*	*0.761 (+)*	*0.710 (-)*	*0.605 (+)*	*0.236 (+)*	*0.758 (+)*	*0.296 (+)*	*0.787 (-)*
OEA/PEA	Effect of BMI§	Overall	0.561 (-)	0.972 (-)	0.272 (+)	0.349 (+)	0.590 (-)	0.616 (-)	0.802 (+)	0.397 (+)	0.488 (+)	0.743 (-)
	Effect of age*	Overall	**0.039 (+)**	0.789 (+)	0.607 (-)	0.654 (-)	0.504 (+)	0.188 (+)	0.323 (+)	0.948 (+)	0.195 (-)	0.914 (+)
		- NW	0.288 (-)	0.451 (+)	0.443 (-)	0.811 (-)	0.781 (+)	**0.049 (+)**	0.249 (-)	0.095 (-)	**0.002 (-)**	0.123 (+)
		- OW	**0.006 (+)**	0.323 (+)	0.605 (-)	0.407 (-)	0.213 (+)	0.171 (+)	**0.007 (+)**	0.583 (-)	**0.027 (-)**	0.725 (+)
		- OB	0.107 (+)	0.913 (-)	0.981 (+)	0.991 (-)	0.756 (+)	0.735 (+)	0.599 (+)	0.449 (+)	0.463 (+)	0.591 (-)
	Int. BMI x age§			*0.057 (+)*	*0.784 (-)*	*0.721 (+)*	*0.948 (+)*	*0.846 (+)*	*0.805 (-)*	*0.479 (+)*	*0.237 (+)*	*0.059 (+)*	*0.308 (-)*

SBP: systolic blood pressure; DBP: diastolic blood pressure; HOMA-IR: homeostatic model assessment – insulin resistance; HDL: high density lipoprotein; AEA: N-arachidonoylethanolamide; PEA: N-palmitoylethanolamide; OEA: N-oleoylethanolamide; NW: normal weight; OW: overweight; OB: obese; Int.: interaction.

‡ Two-way ANOVA (analysis unadjusted for the metabolic parameters). ∞ Two-way ANCOVA (metabolic parameters introduced as covariates). § Effect of BMI on NAE levels and ratios. Positive effect (+): NAE values increased with increasing BMI classes; negative effect (-): NAE values decreased with increasing BMI classes. * Effect of age on NAE levels and ratios. Positive effect (+): NAE values increased with age; negative effect (-): NAE values decreased with age. $ Interaction between BMI and age effects on NAE levels and ratios. Positive interaction (+): the positive (or negative) effect of age on NAE values increased (or decreased) with increasing BMI classes (i.e., the positive (or negative) effect of BMI increased (or decreased) with increasing age). Negative interaction (-): the positive (or negative) effect of age decreased (or increased) with increasing BMI classes (i.e., the positive (or negative) effect of BMI decreased (or increased) with increasing age).