

Online Supporting Material

Supplemental TABLE 1. The effects of the *FTO* rs1558902 and rs9939609 genotypes on the response of glucose, insulin and insulin resistance to dietary fat intervention in whites only¹

Outcomes	rs1558902							rs9939609						
	Low fat			High fat			<i>P</i> -interaction	Low fat			High fat			<i>P</i> -interaction
	Beta	SE	P	Beta	SE	P		Beta	SE	P	Beta	SE	P	
Model 1														
ΔFasting glucose, ² mg/dl	0.35	0.46	0.45	-0.05	0.51	0.92	0.51	0.19	0.48	0.69	0.15	0.53	0.78	0.98
ΔFasting insulin, ^{2,3} μU/ml	0.04	0.03	0.11	-0.03	0.03	0.28	0.07	0.05	0.03	0.04	-0.03	0.03	0.36	0.04
ΔHOMA-IR ^{2,3}	0.05	0.03	0.09	-0.03	0.03	0.30	0.07	0.05	0.03	0.04	-0.02	0.03	0.44	0.06
ΔHOMA-beta ^{2,3}	0.03	0.03	0.30	-0.02	0.03	0.38	0.20	0.05	0.03	0.11	-0.02	0.03	0.36	0.08
Model 2														
ΔFasting glucose, ² mg/dl	0.32	0.46	0.49	-0.05	0.49	0.93	0.57	0.16	0.48	0.74	0.17	0.51	0.74	0.92
ΔFasting insulin, ^{2,3} μU/ml	0.04	0.03	0.15	-0.03	0.03	0.24	0.07	0.05	0.03	0.06	-0.02	0.03	0.34	0.06
ΔHOMA-IR ^{2,3}	0.04	0.03	0.13	-0.03	0.03	0.25	0.07	0.05	0.03	0.07	-0.02	0.03	0.42	0.08
ΔHOMA-beta ^{2,3}	0.03	0.03	0.37	-0.02	0.03	0.37	0.23	0.04	0.03	0.15	-0.02	0.03	0.36	0.10

¹ Values are beta coefficients (Beta), standard errors (SE), and P values (P and *P*-interactions). P values for Model 1 are adjusted for age, sex, race, follow-up time, baseline values for respective outcomes, and concurrent weight change; P values for Model 2 are further adjusted for baseline BMI. Boldface P values indicate statistical significance. *FTO*, fat mass and obesity associated; HOMA-beta, homeostasis model assessment of beta cell function; HOMA-IR, homeostasis model assessment of insulin resistance.

² the Δ variables indicate the change of respective outcomes, i.e., the levels at 2 years minus the baseline levels.

³ the log-transformed levels at 2 years minus the log-transformed baseline levels.