

SUPPLEMENTARY FIGURES

Figure S1. Study recruitment. Flow chart for RYGB and RYGB + ET. Three patients from RYGB decided not to have surgery and seven more dropped out due to personal reasons. Four patients from the RYGB + ET group decided not to pursue surgery and five dropped out for personal reasons. RYGB: Roux-en-Y gastric bypass surgery group; RYGB + ET: Roux-en-Y gastric bypass surgery + exercise training group; ITT: intention-to-treat.

Figure S2. Total protein expression of RYGB and RYGB + ET subjects. Total IRS-1 from Ser 307 membrane (A), total IRS-1 from Tyr 612 membrane (B), total AKT (C), total AMPK (D), total AS160 (E), total JNK (F), total GSK-3 α/β (G), total β -catenin (H), total SMAD 2/3 (I) expression normalized by GAPDH or HSC70 as a loading control (n = 12-15 per group). Data are expressed as mean \pm SEM. RYGB: Roux-en-Y gastric bypass surgery group; RYGB + ET: Roux-en-Y gastric bypass surgery + exercise training group; ^ indicates $P < 0.05$ for main effect of time; # indicates $P < 0.05$ for within-group comparison (vs PRE); & indicates $P < 0.05$ for within-group comparison (vs POST3); * indicates $P < 0.05$ for between-group comparison at POST9.

SUPPLEMENTARY TABLES

Table S1. Commercial assays, antibodies and primer sequences.