SUPPLEMENTARY DATA

The data derived from the stable isotope enrichment of the meal challenge was based on the dual isotope method for monitoring glucose appearance and disappearance from ingested carbohydrate. This method is considered less accurate than the triple isotope approach (Toffolo et al. 2006) and accounts for the lack of consistency in the findings with the euglycemic, hyperinsulinemic clamp. Thus, these data are included only as supplementary information since no significant differences were found.


In Supplementary Figure 2, the one compartment model was used to determine EGP, Ra enteral and Rd during the meal challenge. Ra was first calculated as described in the paper. The enrichment in the plasma was adjusted for the enrichment in the jello by calculating the ratio of 1-\(^13\)C glucose mole fraction% excess in the plasma and dividing by the 1-\(^13\)C glucose mole fraction% excess in the enriched jello. Ra enteral was calculated by the formula: Ra(t)=1-\(^13\)C glucose enrichment in the plasma from the meal (adjusted). Ra endogenous and Rd were then determined by the formulas: Ra end=Ra-Ra enteral and Rd=(Ra enteral+EGP+F)-V[(G2-G1)/(T2-T1)] where G2-G1 is the difference in two sequential plasma glucose concentrations in mg/ml and T2-T1 is the time interval between the sampling of the two glucose measurements.

Aripiprazole or placebo. Using the one-compartment model EGP (upper graphs) was determined prior to and following the administration of olanzapine (Fig. S2a), aripiprazole (Fig. S2b) and placebo (Fig. S2c). Similarly, rate of appearance of glucose from the meal (Ra) was determined pre- and post administration of olanzapine (Fig S2d), aripiprazole (Fig. S2e) and placebo (Fig. S2f). Rate of glucose disposal (RD) (bottom graphs) was determined prior to and following administration of olanzapine (Fig. S2g), aripiprazole (Fig. S2h) or placebo (Fig. S2i). Values are means ±SEM. N=10 for olanzapine, n=7 for aripiprazole and n=10 for placebo. No significant differences were found relative to placebo.
Supplementary Figure 1. Post-prandial plasma glucose, insulin and C-peptide concentrations during euglycemic, hyperinsulinemic clamp after short-term administration of olanzapine, aripiprazole or placebo. Post-prandial plasma glucose concentrations during the euglycemic, hyperinsulinemic clamp prior to (dashed line, solid square) and following administration (solid line, solid circles) of olanzapine (Fig. S1a), aripiprazole (Fig. S1b) or placebo (S1c). Post-prandial plasma insulin concentrations prior to (dashed line, solid square) and following administration (solid line, solid circles) of olanzapine (Fig. S1d), aripiprazole (Fig. S1e) or placebo (Fig. S1f). Post-prandial plasma C-peptide concentrations prior to (dashed line, solid square) and following administration (solid line, solid circles) of olanzapine (Fig. S1g), aripiprazole (Fig. S1h) or placebo (Fig. S1i). Values are mean ± SEM. N=10, all groups. No significant differences were found.
Supplementary Figure 2. Endogenous glucose production (EGP), rate of glucose appearance and glucose disposal during the meal challenge after short-term administration of olanzapine, euglycemic, hyperinsulinemic clamp after short-term administration of olanzapine, aripiprazole or placebo. Post-prandial plasma glucose concentrations during the euglycemic, hyperinsulinemic clamp prior to (dashed line, solid square) and following administration (solid line, solid circles) of olanzapine (Fig. S2a), aripiprazole (Fig. S2b) or placebo (Fig. S2c). Post-prandial plasma insulin concentrations prior to (dashed line, solid square) and following administration (solid line, solid circles) of olanzapine (Fig. S2d), aripiprazole (Fig. S2e) or placebo (Fig. S2f). Post-prandial plasma C-peptide concentrations prior to (dashed line, solid square) and following administration (solid line, solid circles) of olanzapine (Fig. S2g), aripiprazole (Fig. S2h) or placebo (Fig. S2i). Values are mean ± SEM. N=10, all groups. No significant differences were found.