

Figure S1. Gastric emptying after BPD. Related to Figure 2.

Related to Figure 2. The rate of gastric emptying, assessed by determining the radioactive counts remaining in the stomach after ingestion of a mixed meal labeled with technetium-99m, in two subjects after BPD surgery was markedly accelerated.

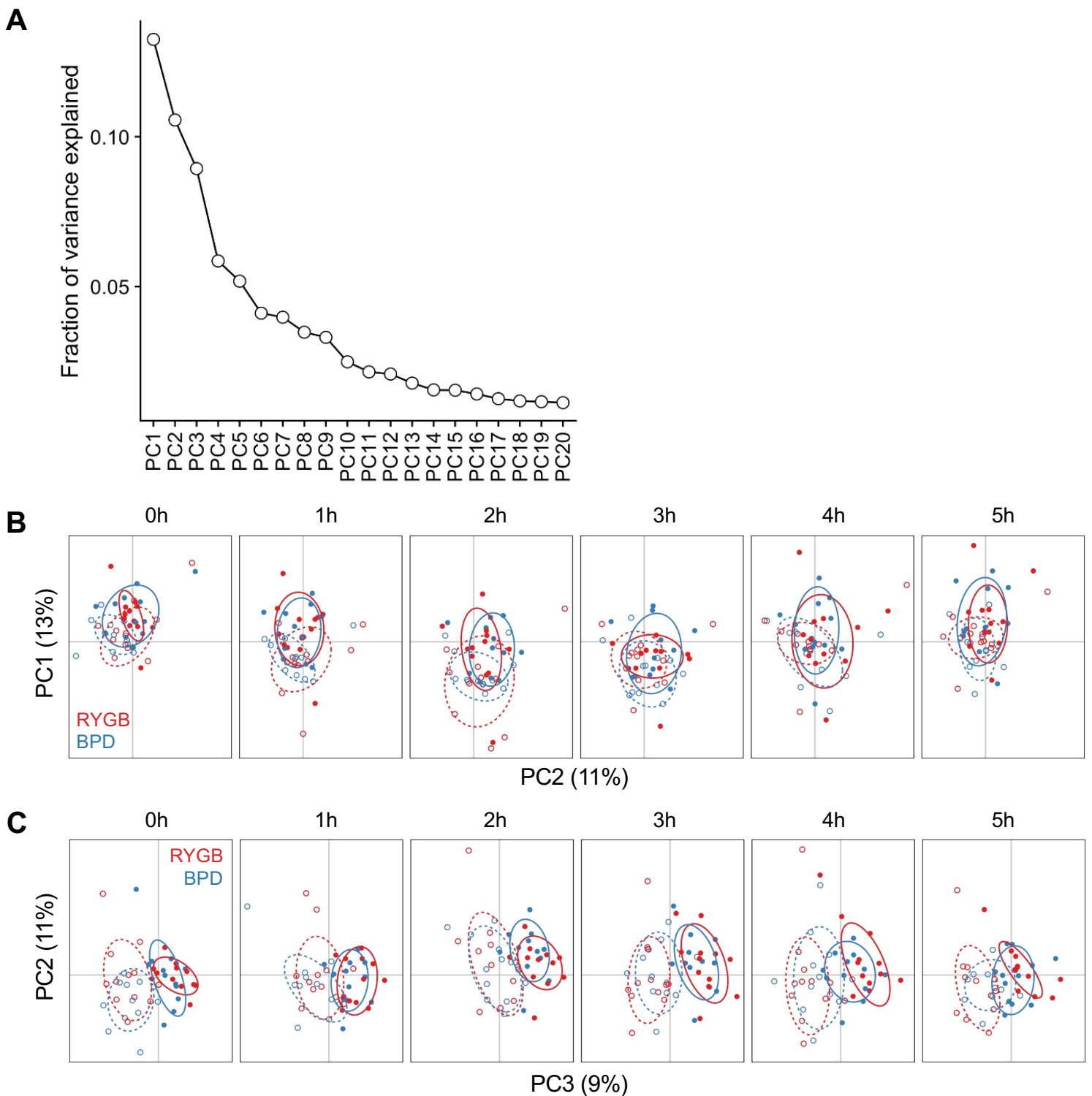


Figure S2. Principal components analysis of plasma metabolite abundances. Related to Figure 4.

Scree plot of variance explained by each principal component (PC) (A). Comparisons of PC1 vs PC2 (B) and PC2 vs PC3 (C) during basal postabsorptive conditions (0 h) and throughout the postprandial period (1 h-5 h) before (solid lines) and after (broken lines) weight loss induced by Roux-en-Y gastric bypass (RYGB, red) and biliopancreatic diversion (BPD, blue) surgeries

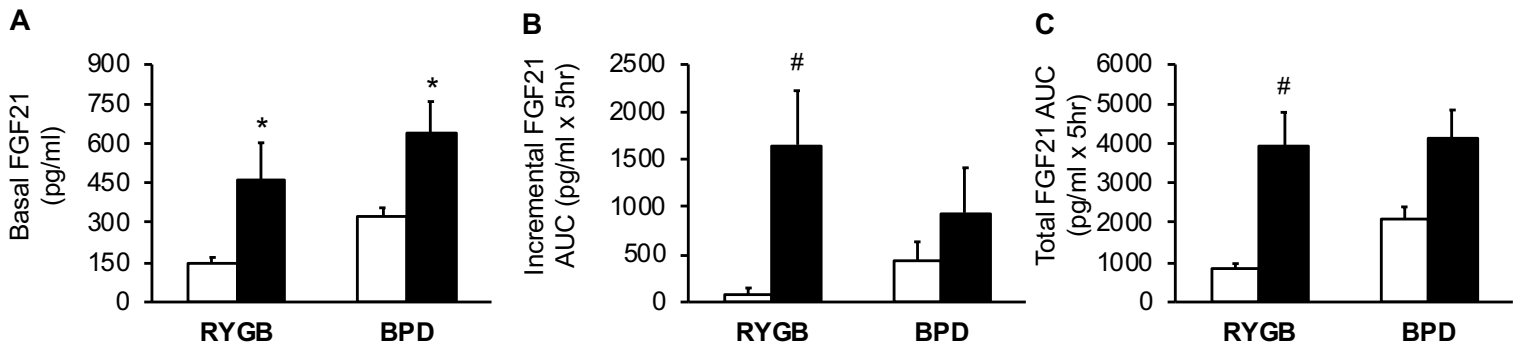


Figure S3. FGF21 concentrations before and after RYGB and BPD. Related to Figure 5.

Basal plasma FGF21 concentrations (A), incremental postprandial 5-h FGF21 concentration areas under the curve (AUC) above basal values (B), and total postprandial 5-h FGF21 concentration AUC above zero (C) before (white bars) and after (black bars) 20% weight loss induced by Roux-en-Y gastric bypass (RYGB, n=5) or biliopancreatic diversion (BPD, n=5) surgeries. *Value significantly different from the corresponding before weight loss value, $p < 0.05$. Data are means \pm SEM.

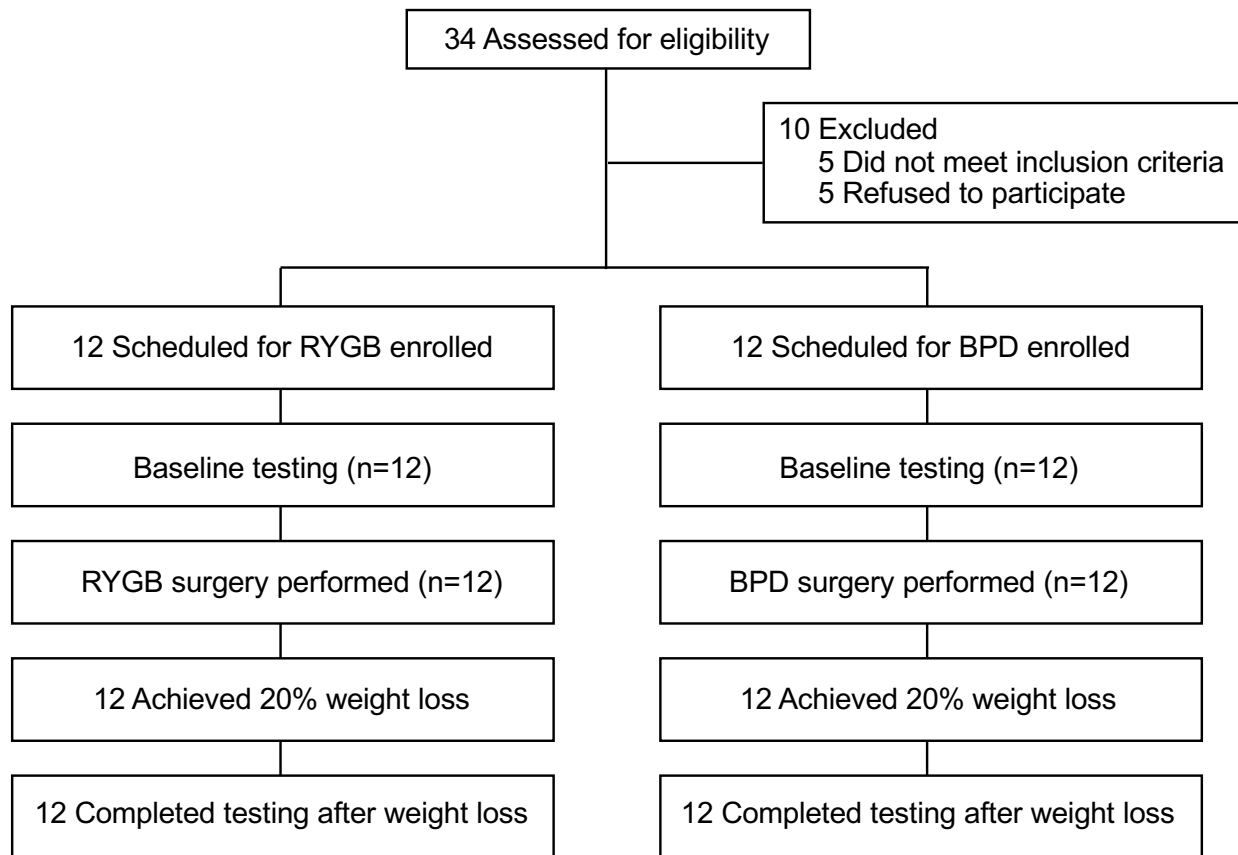


Figure S4. CONSORT flow diagram for the study. Related to STAR Methods.

Table S1. Related to Figure 4. Plasma short-chain fatty acids before and after 20% weight loss induced by Roux-en-Y gastric bypass and biliopancreatic diversion surgeries.

	Roux-en-Y gastric bypass		Biliopancreatic diversion		P _{ANCOVA}
	Before	After	Before	After	
Acetate (μM)	200.42 ± 4.46	219.15 ± 10.56	207.33 ± 4.04	204.7 ± 3.91	0.74
Propionate (μM)	4.52 ± 0.19	4.8 ± 0.19	4.79 ± 0.11	4.88 ± 0.09	0.78
Butyrate (μM)	1.18 ± 0.05	1.31 ± 0.08	1.28 ± 0.03	1.31 ± 0.02	0.93

Data are means ± SEM. No statistically significant differences between or within groups.