**Additional file 2: Figure S1.** β-diversity of taxonomic profiles. (A & B) Non-metric multidimensional scaling (NMDS) of relative abundance profiles for Bacteria species demonstrates minimal shifts in diversity for Control (A) and Exercisers (B) following the 8 week treatment period. (C & D) Principal-coordinate analysis (PCoA) of Archaea relative abundance similarly shows subtle changes in the distribution of patients for both control (C) and exercise (D) groups. Statistical assessment of dissimilarity matrices was performed with the Adonis2 permutational multivariate analysis of variance (PERMANOVA) test. Density plots along the axes of all panels display the concentrations of data points, and were generated from kernel density estimates and scaled to a maximum value of 1.

