**Supplemental Digital Content 8: Narrative: body composition changes.**

Modest fluctuations in weight were demonstrated with pairwise increases from visit 1 to visits 4 and 5 (+0.81 (SD ±2.65) kg, p = 0.020 and +0.82 (SD ±2.70) kg, p = 0.031, respectively) but no difference between visits 1 and 6 (–0.25 kg (SD ±3.03), p=0.60). Fat-free mass increased modestly from visits 1 to 2 (+0.47 (SD ±1.52) kg, p=0.032) but did not differ from visit 1 at visits 4 or 6 (–0.01 (SD ±1.26) kg, p=0.90 and +0.23 (SD ±2.59) kg, p=0.30, respectively). Fat mass decreased from visits 1 to 2 but increased to visit 4 (–0.89 (SD ±1.92) kg, p=0.001, and +0.85 (SD ±2.28) kg, p=0.003, respectively) but did was no different between visits 1 and 6 (+0.04 (SD ±2.30) kg, p=0.90). 1.5 mile run time was improved at visits 2, 3 and 6 compared with visit 1 (–0:30 (SD ±0:30) min, p<0.001, –0:20 (SD ±0:29) min, p<0.001 and –0:15 (SD ±0:40) min, p=0.022, respectively). Heart rate variability demonstrated beneficial adaptation during training (Table 3), particularly for time domain, parasympathetic and sympathetic indices (small effect sizes), and sample entropy (moderate effect size). Time domain measures (pNN50% and RMSSD) demonstrated a significant rise from visit 1 to 2 followed by a modest decline from visit 2 to 3, but remaining higher than visit 1. Frequency domain measures also suggested an improvement with a decrease in LF:HF power ratio from visit 1 to visits 2 and 3, driven by an increase in HF power. Sample entropy increased at visits 3 and 4 compared with visit 1, indicating increased chaotic variability. The PNS and SNS indices, representing a synthesis of time and domain variables, showed an increased parasympathetic and decreased sympathetic activity, respectively. The BEDA-Q score was low and did not change during the study (Table 3).