| Cardiometabolic and Hormonal Outcome Variables |  |  |  |
| :---: | :---: | :---: | :---: |
|  | $-90_{\text {min }} 50 \%$ BRR | CHO-only | Combo |
| Heart rate (\% of heart rate reserve) | $46 \pm 6$ | $46 \pm 5$ | $45 \pm 5$ |
| $\begin{aligned} & \text { Carbohydrate oxidation }(\mathrm{g} / \mathrm{min}) \\ & \hline 10-15 \mathrm{~min} \\ & 85-90 \mathrm{~min} \\ & 135-140 \mathrm{~min} \end{aligned}$ | $\begin{aligned} & 1.69 \pm 1.0 \\ & 1.55 \pm 0.7 \\ & 1.38 \pm 0.6 \end{aligned}$ | $\begin{aligned} & 1.80 \pm 0.8 \\ & 1.82 \pm 0.8 \\ & 1.69 \pm 0.7 \end{aligned}$ | $\begin{aligned} & 1.66 \pm 0.9 \\ & 1.77 \pm 0.8 \\ & 1.54 \pm 0.7 \end{aligned}$ |
| $\begin{aligned} & \hline \text { Fat oxidation }(\mathrm{g} / \mathrm{min}) \\ & \hline 10-15 \mathrm{~min} \\ & 85-90 \mathrm{~min} \\ & 135-140 \mathrm{~min} \end{aligned}$ | $\begin{aligned} & 0.48 \pm 0.1 \\ & 0.47 \pm 0.1 \\ & 0.51 \pm 0.2 \end{aligned}$ | $\begin{gathered} 0.52 \pm 0.2 \\ 0.37 \pm 0.1^{*} \\ 0.39 \pm 0.1 \text { * } \dagger \end{gathered}$ | $\begin{gathered} 0.51 \pm 0.2 \\ 0.39 \pm 0.1 \text { * } \\ 0.44 \pm 0.1 \end{gathered}$ |
| B-hydroxybutyrate ( $\mathrm{mmol} / \mathrm{L}$ ) <br> Pre-exercise: 0 min <br> Post-exercise: 140 min | $\begin{gathered} 0.2 \pm 0.2 \\ 0.4 \pm 0.3 \ddagger \S \end{gathered}$ | $\begin{aligned} & 0.2 \pm 0.1 \\ & 0.1 \pm 0.1 \end{aligned}$ | $\begin{gathered} 0.2 \pm 0.2 \\ 0.3 \pm 0.2 \\| \end{gathered}$ |
| $\begin{aligned} & \text { Energy expenditure (kcal/min) } \\ & 10-15 \mathrm{~min} \\ & 85-90 \mathrm{~min} \\ & 135-140 \mathrm{~min} \end{aligned}$ | $\begin{gathered} 7.5 \pm 2.2 \\ 7.1 \pm 1.9 \\ 7.0 \pm 2.0 \text { * } \end{gathered}$ | $\begin{gathered} 7.7 \pm 1.8 \\ 7.1 \pm 1.9 \text { * } \\ 6.9 \pm 1.9 \text { * } \end{gathered}$ | $\begin{gathered} 7.6 \pm 2.0 \\ 7.1 \pm 2.0 \text { * } \\ 6.9 \pm 1.9 \text { * } \end{gathered}$ |
| Total caloric expenditure (kcal) | $863 \pm 241$ | $869 \pm 218$ | $861 \pm 231$ |
| Caloric intake (kcal) | $3 \pm 13 \ddagger$ | $160 \pm 79$ | $124 \pm 68$ |
| Net caloric expenditure (kcal) | $860 \pm 240 \ddagger$ | $709 \pm 217$ | $737 \pm 201$ |
| Plasma glucagon (pg/mL) <br> Pre-exercise: 0 min <br> Mid-exercise: 65 min <br> Post-exercise: 140 min | $\begin{gathered} 15.1 \pm 8.9 \\ 21.3 \pm 14.5 \\ 30.9 \pm 22.3 \text { * } \end{gathered}$ | $\begin{gathered} 16.3 \pm 13.0 \\ 15.5 \pm 15.5 \\ 18.1 \pm 8.9 \dagger \end{gathered}$ | $\begin{gathered} 11.7 \pm 7.0 \\ 13.9 \pm 7.5 \\ 22.7 \pm 19.2 \end{gathered}$ |
| $\begin{array}{\|l} \hline \text { Salivary cortisol }(\mathrm{ng} / \mathrm{mL}) \\ \text { Pre-exercise: } 0 \mathrm{~min} \\ \text { Post-exercise: } 140 \mathrm{~min} \end{array}$ | $\begin{aligned} & 41.3 \pm 15.5 \\ & 32.7 \pm 14.8 \end{aligned}$ | $\begin{gathered} 44.3 \pm 19.4 \\ 28.8 \pm 14.0 \S \end{gathered}$ | $\begin{aligned} & 40.7 \pm 15.5 \\ & 27.7 \pm 9.5 \S \end{aligned}$ |

Supplementary Table S1. Cardiometabolic and hormonal outcome variables. Cardiometabolic outcomes in all treatment conditions ( $\mathrm{n}=15$ ) during exercise. Values are presented as mean $\pm$ SD. *Significantly different from the 10-15-minute time period within the same strategy ( $P<0.05$ ). $\dagger$ Significantly different from $-90 \min 50 \%$ BRR at the same time period ( $P<0.05$ ). $\ddagger$ Significantly different from other strategies ( $P<0.05$ ). §Significantly different from pre-exercise within the same strategy ( $P<0.05$ ). ||Significantly different from the CHO-only strategy at the same time period ( $P<0.05$ ).


Supplementary Figure S1. Change in glucose dependence of baseline glucose. Change in blood glucose level during 120 minutes of exercise relative to baseline preexercise glucose level.


Supplementary Figure S2. Continuous glucose monitor ranges 12 hours following exercise across three conditions and rest day. Glucose ranges defined as level 2 hyperglycemia ( $>250 \mathrm{mg} / \mathrm{dL}$ ), level 1 hyperglycemia ( $181-250 \mathrm{mg} / \mathrm{dL}$ ), target rage ( $70-$ $180 \mathrm{mg} / \mathrm{dL}$ ), level 1 hypoglycemia ( $54-69 \mathrm{mg} / \mathrm{dL}$ ) and level 2 hypoglycemia ( $<54 \mathrm{mg} / \mathrm{dL}$ ), data presented as mean. *Significantly different from Rest ( $P<0.05$ ).

