SUPPLEMENTARY DATA

Supplementary Table 1. Changes in plasma glucose levels throughout exercise and recovery.

Glucose (mmol/l)	AR	P (change from baseline in AR)	RA	P (change from baseline in RA)	P (AR vs RA)	P (change from end-exercise in AR)	P (change from end-exercise in RA)
Baseline	9.1 ± 2.4		9.7 ± 3.9		0.655		
Exercise							
5 min	8.5 ± 2.6	0.088	9.8 ± 4.1	0.765	0.399		
10 min	7.8 ± 2.9	0.023*	9.5 ± 4.0	0.554	0.213		
15 min	7.2 ± 3.1	0.013*	9.6 ± 4.0	0.838	0.091		
30 min	5.9 ± 3.2	0.002*	9.2 ± 3.9	0.287	0.019*		
45 min	5.5 ± 2.4	<0.001*	9.2 ± 4.0	0.244	0.006*		
50 min	6.9 ± 1.7	<0.001*	9.5 ± 3.7	0.590	0.017*		
55 min	7.0 ± 2.0	0.009*	9.6 ± 3.5	0.719	0.005*		
60 min	7.2 ± 2.0	0.011*	9.4 ± 3.7	0.461	0.014*		
75 min	7.4 ± 2.4	0.040*	8.0 ± 3.4	0.044*	0.345		
90 min	7.5 ± 2.6	0.068	6.9 ± 3.1	0.018*	0.436		
Recovery							
95 min	7.6 ± 2.6	0.082	7.3 ± 2.9	0.045*	0.693	0.233	0.100
100 min	7.7 ± 2.7	0.177	7.2 ± 3.0	0.047*	0.613	0.105	0.145
105 min	7.8 ± 2.9	0.159	7.4 ± 2.9	0.063	0.665	0.015*	0.097
110 min	8.0 ± 3.0	0.253	7.5 ± 3.0	0.093	0.662	0.018*	0.113
120 min	8.5 ± 3.0	0.486	7.7 ± 3.3	0.138	0.527	0.006*	0.130
130 min	8.9 ± 3.0	0.792	7.9 ± 3.6	0.197	0.441	0.004*	0.125
140 min	9.1 ± 3.0	0.993	8.0 ± 3.6	0.219	0.357	0.008*	0.142
150 min	9.1 ± 2.9	0.962	7.9 ± 3.5	0.232	0.375	0.014*	0.264

N=12. Data are presented as mean ± SD. * denotes statistical significance. AR represents aerobic exercise performed prior to resistance exercise. RA represents resistance exercise performed prior to aerobic exercise.

Supplementary Table 2. Insulin doses and adjustments prior to and during exercise for individuals using continuous subcutaneous insulin infusion (CSII) and multiple daily injections (MDI).

Participants using CSII	1	2	3	4	5	6	7
Basal (AR)	suspend	50%	suspend	suspend	50%	50%	suspend
Basal (RA)	suspend	variable	suspend	suspend	50%	50%	suspend
Snack bolus (U) (AR)	0	0	0	2.4	0.9	0	0
Snack bolus (U) (RA)	0	0	0	2.2	1.0	0	0
Participants using MDI							
Lunch bolus (U) (AR)	5	10	10	7	15		
Lunch bolus (U) (RA)	4	10	10	16	15		
Snack bolus (U) (AR)	0	0	0	2	0		
Snack bolus (U) (RA)	0	3	0	0	0		

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SUPPLEMENTARY DATA

Supplementary Table 3. Grams of carbohydrate consumed by participants during laboratory testing sessions.

Participants using CSII	*Pre-exercise		Exercise		Recovery		Total	
	AR	RA	AR	RA	AR	RA	AR	RA
1	0	0	8	32	0	0	**8**	**32**
2	0	0	0	0	0	0	**0**	**0**
3	0	8	86	0	0	0	**86**	**8**
4	0	0	32	16	0	0	**32**	**16**
5	0	0	0	0	0	0	**0**	**0**
6	8	0	0	0	0	0	**8**	**0**
7	0	0	52	0	0	0	**52**	**0**
Participants using MDI								
1	0	0	16	16	0	0	**16**	**16**
2	0	0	16	0	0	0	**16**	**0**
3	0	0	8	0	0	0	**8**	**0**
4	0	16	64	96	12	0	**76**	**112**
5	18	24	0	16	0	0	**18**	**40**
Total	**26**	**48**	**282**	**176**	**12**	**0**	**320**	**224**

* Pre-exercise and recovery periods were 1 hour in duration, while exercise sessions took approximately 1.5 hours.

Supplementary Table 4. Insulin and carbohydrate intake during the 6 hours following exercise.

	Carbohydrate (g)		Insulin (U)	
Participant	**AR**	**RA**	**AR**	**RA**
1	80	128	15.8	11.9
2	90	110	8	18
3	101	172	7.4	8.2
4	113	50	20	15
5	59	106	40	38
6	54	75	16	0
7	44	42	5.8	7.3
8	116	115	15.5	15.4
9	135	135	13.5	4.5
10	60	97	11.4	13.7
11	26	0	5.1	5.9
12	198	187	24.6	23.9
MEAN (SD)	**89.6 (47.1)**	**101.4 (53.6)**	**15.3 (9.8)**	**13.5 (10.1)**

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