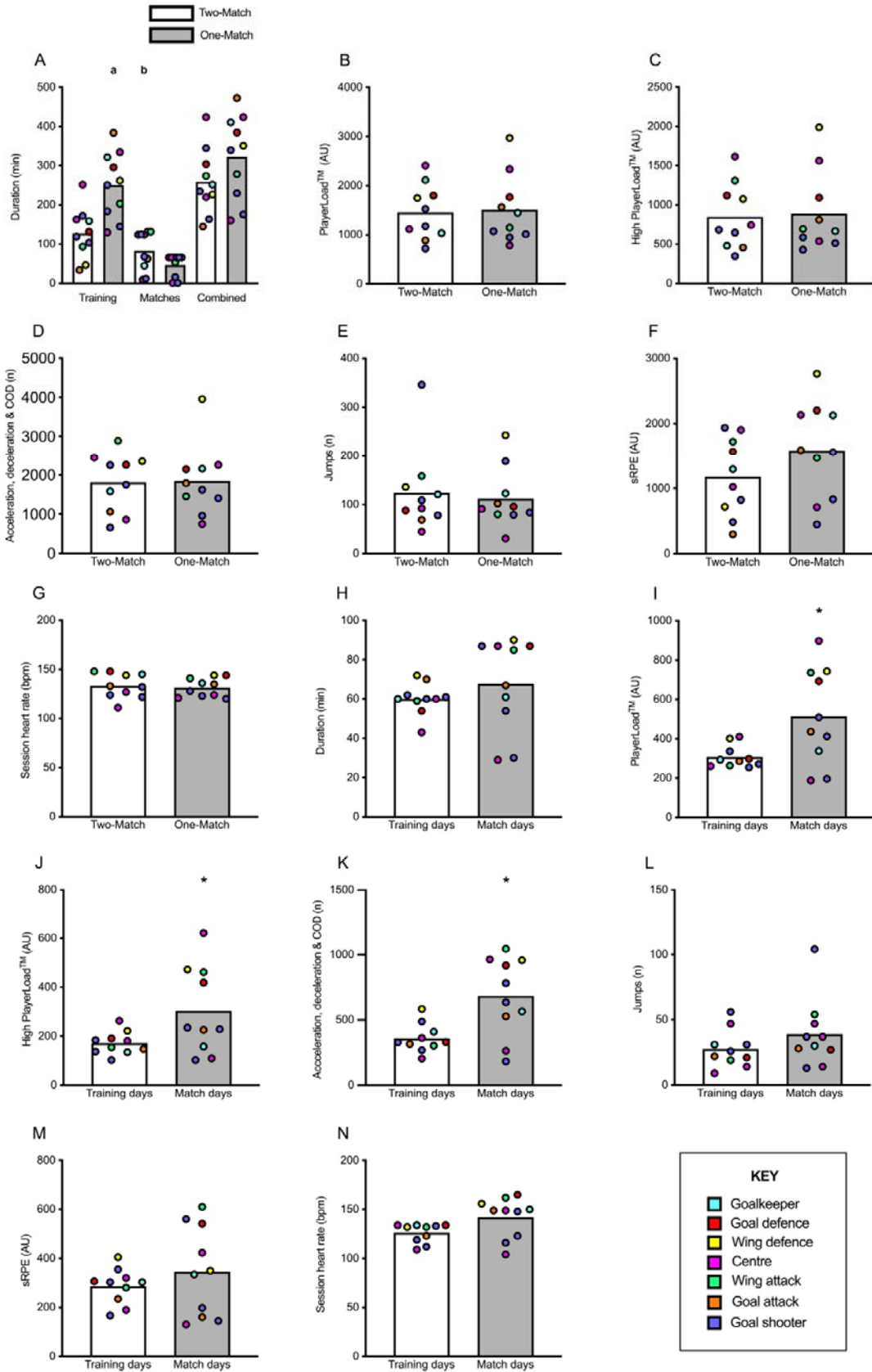
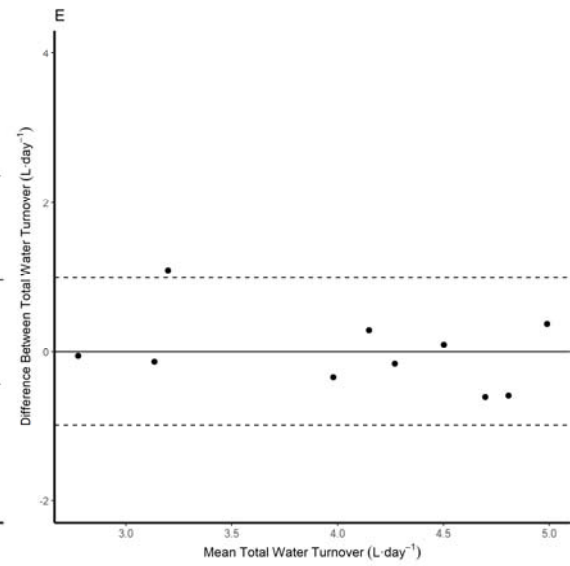
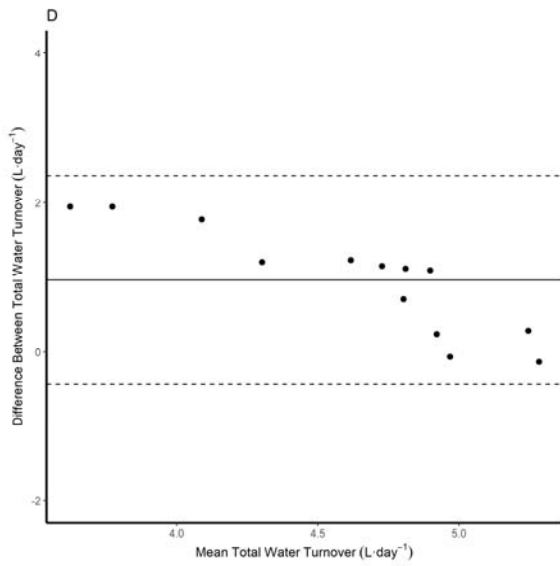
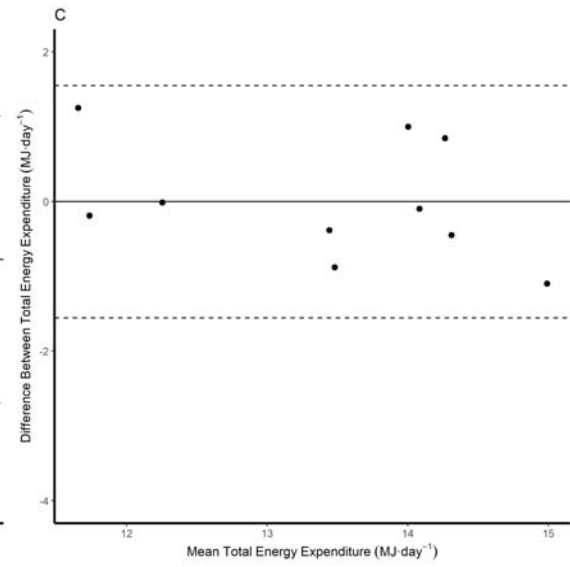
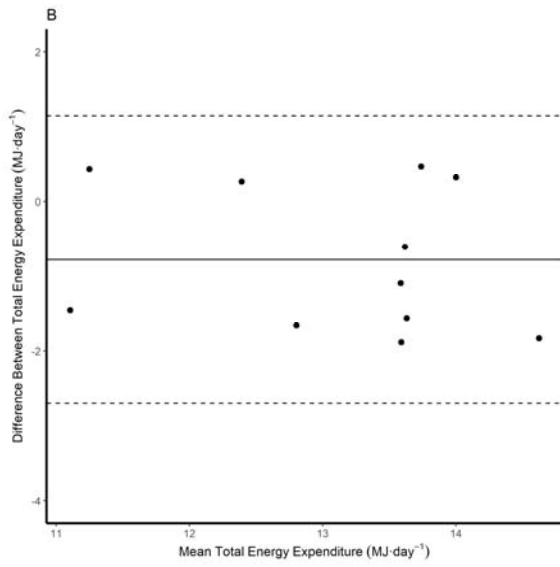
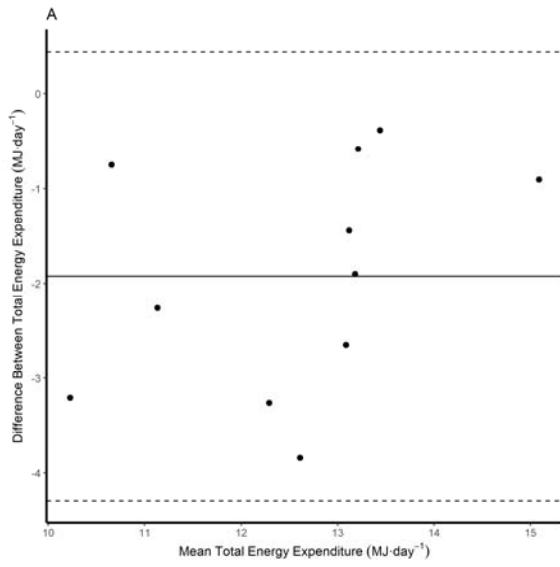


SUPPLEMENTAL ONLINE MATERIAL

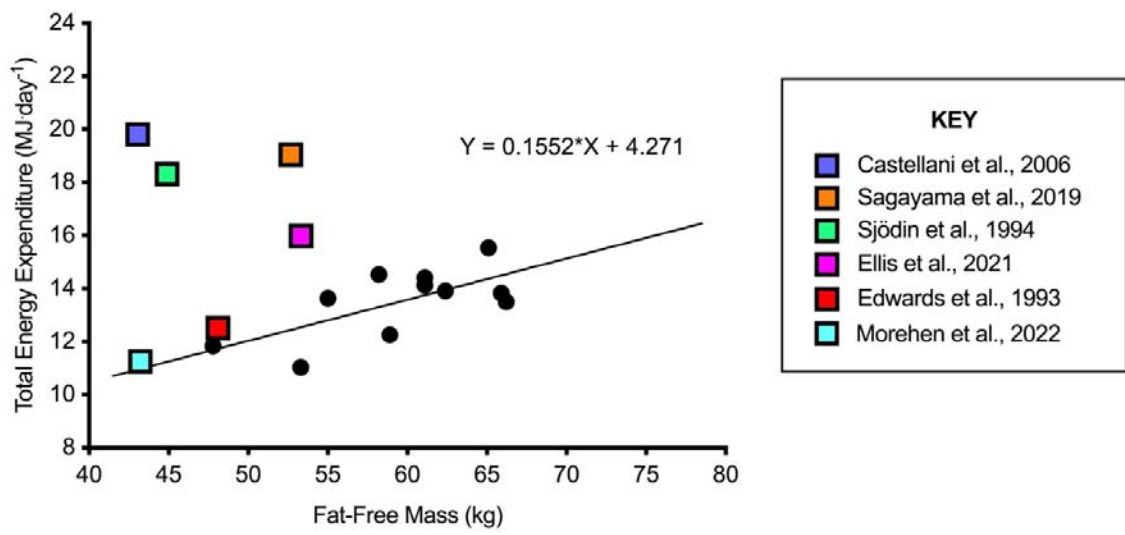
3 Figures and 2 Tables have been submitted as supplementary material.



Supplementary Materials, Figure 1. Internal and external load variables measured over the assessment period. Total (A) duration, (B) Player Load, (C) High Player Load, (D) acceleration, deceleration, and change of direction (COD), (E) jumps, (F) sessional ratings of perceived exertion (sRPE), and (G) average heart rate per session over the two- and one-match microcycle. Average (H) duration, (I) Player Load, (J) High Player Load, (K) acceleration, deceleration, and COD, (L) jumps, (M) sRPE, and (N) heart rate per session on training and match days. White bars represent the two-match microcycle or training days. Grey bars represent the one-match microcycle or match days. ^a denotes a significant difference from the two-match microcycle, $p = 0.005$. ^b denotes a significant difference from the one-match microcycle, $p = 0.008$. * denotes a significant difference from training days, $p < 0.05$. All data are representative of $n=10$, in accordance with participants who were free from injury (participants 1 and 10) and wore microtechnology units across all sessions (participant 5). Participants are colour coded by positional group. Minutes (min), arbitrary units (AU), and beats per minute (bpm).



Supplementary Materials, Figure 2. Bland Altman plot of the mean difference between energy expenditure and water turnover (WT) by different methods. (A) Total energy expenditure measured by Actiheart against the doubly labelled water (DLW) criterion. Total energy expenditure estimated from (B) the published Pontzer et al. (2021) equation^[37] and (C) equation four from this study against the DLW criterion. Water turnover estimated from (D) the published Yamanda et al. (2022) equation^[29] and (E) equation five from this study against the DLW criterion.



Supplementary Materials, Figure 3. Regression bivariate plot of absolute total energy expenditure (TEE) and fat-free mass (FFM) for female netball players measured by doubly labelled water and deuterium, respectively. Black circles represent individual non-injured participants from this study. Coloured squares represent absolute mean TEE and FFM for active females measured by isotope dilution from published literature.

Supplementary Materials, Table 1. Example macronutrient distribution across rest, training, and match days for female netball players.

Rest and training days (including MD-1 and MD+1)																					
Eating occasion	Breakfast			AM (rest or training)			Post-Training Recovery Drink		Lunch			PM (rest)			Dinner			Total			
CHO periodisation	LOW	MOD	HIGH	LOW	MOD	HIGH	MOD	HIGH	LOW	MOD	HIGH	LOW	MOD	HIGH	LOW	MOD	HIGH	LOW	MOD	HIGH	
CHO (g kg⁻¹)	1		1.5	0.25		0.5	1.0		1		1.5	0.25		0.5	1.0	1		2	3-4	5-6	7-8
Protein (g kg⁻¹)	0.4			0.1	0.0			0.1	0.5			0.1			0.5			1.6			
Fat (g kg⁻¹)	0.3			0.1	0.0			0.1	0.3			0.1			0.3			1.1			
Match day (Post meridiem centre pass)																					
Eating occasion	Breakfast			Pre-Match Meal			Pre-Game (warm-up)		In-Game			Post-Match Recovery Meal			After Post-Match Recovery Meal			Total			
CHO periodisation	HIGH			HIGH			HIGH		HIGH			HIGH			HIGH			HIGH			
CHO (g kg⁻¹)	1.5			1.5			30-60 g hr ⁻¹		30-60 g hr ⁻¹			2.0			2.0			7-8			
Protein (g kg⁻¹)	0.4			0.4			0.0		0.0			0.4			0.4			1.6			
Fat (g kg⁻¹)	0.3			0.3			0.0		0.0			0.4			0.2			1.1			

Low, moderate, and high carbohydrate periodisation refer to rest, training, and match days (-1/+1), respectively. Fat-free mass (FFM). Carbohydrate (CHO). Moderate (MOD).

Supplementary Materials, Table 2. Energy balance associated with proposed dietary energy targets for female netball players.

Energy balance across weekly microcycles									
One-match microcycle (1 Match, 4 Train, 2 Rest)	Schedule	MD-5	MD-4	MD-3	MD-2	MD-1	MD	MD+1	One-match microcycle EB (MJ·day ⁻¹)
		Train	Train	Train	Rest	Train	Match	Rest	
	CHO Periodisation	MOD	MOD	MOD	LOW	HIGH	HIGH	HIGH	
EB (MJ·day ⁻¹)	45 kgFFM ⁻¹	-1.11 to -0.10	-1.11 to -0.10	-1.11 to -0.10	-1.80 to -0.78	0.92 to 1.94	-1.33 to -0.31	2.27 to 3.29	-0.47 to 0.55
	50 kgFFM ⁻¹	-1.24 to -0.11	-1.24 to -0.11	-1.24 to -0.11	-2.00 to -0.87	1.02 to 2.15	-1.48 to -0.35	2.52 to 3.65	-0.52 to 0.61
	55 kgFFM ⁻¹	-1.36 to -0.12	-1.36 to -0.12	-1.36 to -0.12	-2.20 to -0.96	1.13 to 2.37	-1.62 to -0.38	2.78 to 4.02	-0.57 to 0.67
	60 kgFFM ⁻¹	-1.49 to -0.13	-1.49 to -0.13	-1.49 to -0.13	-2.40 to -1.04	1.23 to 2.59	-1.77 to -0.41	3.03 to 4.39	-0.63 to 0.73
	65 kgFFM ⁻¹	-1.61 to -0.14	-1.61 to -0.14	-1.61 to -0.14	-2.60 to -1.13	1.33 to 2.80	-1.92 to -0.45	3.28 to 4.75	-0.68 to 0.79
	70 kgFFM ⁻¹	-1.73 to -0.15	-1.73 to -0.15	-1.73 to -0.15	-2.80 to -1.22	1.43 to 3.02	-2.07 to -0.48	3.53 to 5.12	-0.73 to 0.86
Two-match microcycle (2 Match, 2 Train, 3 Rest)	Schedule	MD-1	MD	MD-1	MD	MD+1	MD+2	MD+3	Two-match microcycle EB (MJ·day ⁻¹)
		Train	Match	Rest	Match	Rest	Rest	Train	
	CHO Periodisation	HIGH	HIGH	HIGH	HIGH	HIGH	LOW	MOD	
EB (MJ·day ⁻¹)	45 kgFFM ⁻¹	0.92 to 1.94	-1.33 to -0.31	2.27 to 3.29	-1.33 to -0.31	2.27 to 3.29	-1.80 to -0.78	-1.11 to -0.10	-0.02 to 1.00
	50 kgFFM ⁻¹	1.02 to 2.15	-1.48 to -0.35	2.52 to 3.65	-1.48 to -0.35	2.52 to 3.65	-2.00 to -0.87	-1.24 to -0.11	-0.02 to 1.11
	55 kgFFM ⁻¹	1.13 to 2.37	-1.62 to -0.38	2.78 to 4.02	-1.62 to -0.38	2.78 to 4.02	-2.20 to -0.96	-1.36 to -0.12	-0.02 to 1.22
	60 kgFFM ⁻¹	1.23 to 2.59	-1.77 to -0.41	3.03 to 4.39	-1.77 to -0.41	3.03 to 4.39	-2.40 to -1.04	-1.49 to -0.13	-0.02 to 1.34
	65 kgFFM ⁻¹	1.33 to 2.80	-1.92 to -0.45	3.28 to 4.75	-1.92 to -0.45	3.28 to 4.75	-2.60 to -1.13	-1.61 to -0.14	-0.02 to 1.45
	70 kgFFM ⁻¹	1.43 to 3.02	-2.07 to -0.48	3.53 to 5.12	-2.07 to -0.48	3.53 to 5.12	-2.80 to -1.22	-1.73 to -0.15	-0.02 to 1.56

Low, moderate, and high carbohydrate periodisation refer to rest, training, and match days (-1/+1), respectively. Energy targets are 0.20 MJ·FFM⁻¹·day⁻¹, 0.23 MJ·FFM⁻¹·day⁻¹, and 0.28 MJ·FFM⁻¹·day⁻¹ as measured by doubly labelled water in this study for low, moderate, and high carbohydrate days, respectively. Carbohydrate targets are 3-4 g·kg⁻¹, 5-6 g·kg⁻¹, and 7-8 g·kg⁻¹ of body mass across low, moderate, and high carbohydrate days, respectively. Protein and fat targets are standardised at 1.6 g·kg⁻¹ and 1.1 g·kg⁻¹ of body mass, respectively. Energy balance across the one-match microcycle includes one match, four training, and two rest days. Energy balance across the two-match microcycle includes two matches, two training, and three rest days. Energy values of 16.73 kJ, 16.73 kJ and 37.65 kJ have been used for carbohydrate, protein, and fat, respectively. Days are labelled based on their proximity to MD, represented as days before (-) or after (+) MD. Fat-free mass (FFM). Carbohydrate (CHO). Energy balance (EB). Moderate (MOD). Match day (MD).