

Supplementary Table 2. Experimental and control condition details

Author and Year	Supplement/Dietary Details				Placebo/Control Details	
	Composition	Amount	Timing	N	Amount	N
Andersen 2005 (16)	Protein blend (whey, casein, egg white protein and glutamine)	25 g	Training days = pre- and post-exercise; non-training days = morning	11	25 g CHO	11
Antonio 2014 (18)	Instructed to consume high protein diet	4.4 g/kg/day PRO diet	N/A	20	1.8 g/kg/day PRO diet	10
Antonio 2015 (17)	Instructed to consume high protein diet	3.4 g/kg/day PRO diet	N/A	31	No instruction - 2.3 g/kg/day PRO	17
Arazi 2011 (19)	Whey protein provided to increase dietary protein intake	1.8 g/kg/day was supplemented to increase PRO in diet	Training days = morning, post-exercise and night; non-training days = morning and night	20	CHO (unknown g)	20
Arnason 2013 (20)	Whey protein beverage	20 g (+20 g CHO and 1 g fat)	Training days = post-exercise	75	40 g CHO, 1 g fat	66
Babault 2015 (whey; 22)	Whey protein	25 g	Training days = morning and post-exercise; non-training days = morning and afternoon	54	37.125 g CHO (74.25 g/d)	54
Babault 2015 (pea; 22)	Pea protein	25 g	Training days = morning and post-exercise; non-training days = morning and afternoon	53	37.125 g CHO (74.25 g/d)	54
Babault 2014 (milk; 21)	Milk protein beverage	10 g (+20 g CHO)	Training days = morning, pre- and post-exercise; non-training days = morning and night	22	30 g CHO	24
Babault 2014 (casein; 21)	Casein protein beverage	10 g (+20 g CHO)	Training days = morning, pre- and post-exercise; non-training days = morning and night	22	30 g CHO	24
Bemben 2010 (23)	Whey protein + Gatorade	35 g (+480 mL Gatorade)	Training days = post-exercise	11	480 mL Gatorade	10
Brown 2004 (whey; 24)	Whey protein bar	11 g	Three times daily	9	N/A	9
Brown 2004 (soy; 24)	Soy protein bar	11 g	Three times daily	9	N/A	9
Bunout 2004 (25)	Provided soup or porridge	6.5 g	Two times daily	31	N/A	28
Burke 2001 (26)	Whey protein	additional 1.2 g/kg/day	Four times daily	12	1.2 g/kg/day CHO	11
Campbell 1995 (27)	Milk beverage to increase dietary protein intake	additional 1 g/kg/day	?	6	Milk with reduced additional PRO - 0.2 g/kg/day PRO	6
Candow 2006 (whey; 28)	Whey protein	additional 1.2 g/kg/day	Training days = pre-exercise, post-exercise and pre-sleep; non-training days = three times spread throughout the day	9	1.2 g/kg/day CHO	9
Candow 2006 (soy; 28)	Soy protein	additional 1.2 g/kg/day	Training days = pre-exercise, post-exercise and pre-sleep; non-training days = three times spread throughout the day	9	1.2 g/kg/day CHO	9
Candow 2006a (pre-ex; 29)	Whey protein + Myoplex + Cocoa	additional 0.3 g/kg PRO	Training days = pre-exercise with a placebo post-exercise	9	0.63 g/kg CHO	10
Candow 2006a (post-ex; 29)	Whey protein + Myoplex + Cocoa	additional 0.3 g/kg PRO	Training days = post-exercise with a placebo pre-exercise	10	0.63 g/kg CHO	10
Carter 2005 (30)	Whey protein + Gatorade	35 g (+480 mL Gatorade)	Training days = post-exercise	11	480 mL Gatorade	10
Coburn 2006 (31)	Whey and leucine beverage	20 g (+6.2 g leucine)	Training days = morning, pre- and post-exercise; non-training days = morning	11	26.2 g CHO	12
Cribb 2007 (32)	Whey protein	1.29 g/kg/day	Morning, post-exercise and pre-sleep	5	1.325 g/kg/day CHO	7
Daly 2014 (33)	Provided red meat	45 g/day	Food was supplied and consumed it in two different meals	48	25-35 g CHO	43
Deibert 2011 (34)	Soy protein	13.35 g (+7.65 g CHO)	Post-exercise or evening	15	N/A	15
Eliot 2008 (35)	Whey protein	35 g (+480 mL Gatorade)	Training days = post-exercise	11	480 mL Gatorade	10
Erksine 2012 (36)	Whey protein	20 g (+6.7 g lactose)	Training days = pre- and post-exercise	17	6.8 g lactose	16
Farup 2014 (37)	Whey protein beverage	19.5 g (+19.5 g CHO)	Training days = half pre- and half post-exercise	11	39 g CHO	11
Hartman 2007 (milk; 38)	Milk protein beverage	17.5 g (+25.7 g CHO and 0.4 g fat)	Training days = immediately and 1h post-exercise	18	9% CHO	19
Hartman 2007 (soy; 38)	Soy protein beverage	17.5 g (+25.7 g CHO and 0.4 g fat)	Training days = immediately and 1h post-exercise	19	9% CHO	19
Herda 2013 (39)	Whey protein	20 g	Training days = pre- and post-exercise; non-training days = once with no specific time	22	27 g CHO	21
Hoffman 2007 (40)	Protein blend (glutamine, whey, egg and milk protein)	42 g (+18 g CHO and 3 g fat)	Training days = morning and post-exercise; non-training days = morning	11	63 g CHO, 2 g PRO and 2 g fat	10
Hoffman 2009 (morning + night; 41)	Protein blend (collagen, whey and casein)	42 g (+2 g CHO)	Morning and evening daily	13	N/A	7
Hoffman 2009 (pre- + post-ex; 41)	Protein blend (collagen, whey and casein)	42 g (+2 g CHO)	Training days = pre- and post-exercise; non-training days = taken at similar two similar times	13	N/A	7
Hulmi 2009 (42)	Whey protein	15 g	Training days = pre- and post-exercise	11	Nonenergetic placebo drink	10
Hulmi 2009a (44)	Whey protein	15 g	Training days = pre- and post-exercise	9	Nonenergetic placebo drink	9
Hulmi 2015 (PRO; 43)	Whey protein	30 g (+5 g lactose)	Training days = post-exercise	22	34.5 g CHO	21
Hulmi 2015 (PRO+CHO; 43)	Whey protein beverage	30 g (+34.5 g CHO)	Training days = post-exercise	25	34.5 g CHO	21
Iglay 2009 (45)	Instructed to consume high protein diet	1.6 g/kg/day PRO diet	N/A	18	0.8 g/kg/day PRO	18

Supplementary Table 2 Continued.

Author and Year	Supplement/Dietary Details				Placebo/Control Details	
	Composition	Amount	Timing	N	Amount	N
Josse 2010 (46)	Fat-free milk	18 g (+24 g CHO)	Training days = immediately and 1h post-exercise	10	CHO (unknown g)	10
Kerksick 2006 (whey + casein; 47)	Whey and casein beverage	40 g (+8 g casein)	Training days = post-workout; non-training days = morning	10	48 g CHO	11
Kerksick 2006 (whey + EAA; 47)	Whey and AA beverage	40 g (+3 g BCAA and 5 g glutamine)	Training days = post-workout; non-training days = morning	15	48 g CHO	11
Leenders 2013 (men; 48)	Milk	15 g (+0.5 g fat, 7.13 g lactose and 0.42 g calcium)	Morning daily	15	7.13 g lactose, 0.42g calcium	14
Leenders 2013 (women; 48)	Milk	15 g (+0.5 g fat, 7.13 g lactose and 0.42 g calcium)	Morning daily	12	7.13 g lactose, 0.42g calcium	12
Mielke 2009 (49)	Whey and leucine beverage	20 g (+6.2 g leucine)	Training days = pre- and post-exercise; non-training days = morning and night	13	20 g CHO	13
Mitchell 2015 (young; 50)	500ml chocolate milk	14 g (+54 g CHO and 5 g fat)	Training days = post-exercise; non-training days = taken after breakfast	?	0.4 g PRO, 5 g fat and 66 g CHO	?
Mitchell 2015 (old; 50)	500ml chocolate milk	14 g (+54 g CHO and 5 g fat)	Training days = post-exercise; non-training days = taken after breakfast	?	0.4 g PRO, 5 g fat and 66 g CHO	?
Negro 2014 (51)	Daily 135 g serving of lean beef	20 g (+1.7 g fat)	Training days = post-exercise	12	N/A	14
Oesen 2015 (52)	Protein beverage	20.7 g (+9.3 g CHO, 3 g fat, 800 IU Vit D, 2.9 mg Vit B6 and 3 ug Vit B12)	Training days = morning and post-exercise; non-training days = morning	25	N/A	31
Olsen 2006 (53)	Milk	20 g (+80 g CHO)	Training days = half pre-exercise and half post-exercise	8	80 g CHO	8
Paoli 2015 (55)	Provided whey protein to increase dietary protein intake	1.8 g/kg/day PRO diet	Training days = pre- and post-exercise	9	0.85 g/kg/day CHO	9
Paoli 2016 (54)	Provided whey protein to increase dietary protein intake	1.8 g/kg/day PRO diet	Training days = pre- and post-exercise	9	0.85 g/kg/day CHO	9
Rankin 2004 (56)	Low fat chocolate milk	0.21 g/kg (+0.92 g/kg CHO and 0.06 g/kg fat)	Training days = post-exercise	10	1.25 g/kg CHO	9
Reidy 2016 (whey; 57)	Whey protein	22 g	Training days = post-exercise; non-training days = between meals	23	22 g CHO	23
Reidy 2016 (soy; 57)	Soy protein	22 g	Training days = post-exercise; non-training days = between meals	22	22 g CHO	23
Rozenek 2002 (58)	Protein beverage	106 g (+356 g CHO and 18 g fat)	Daily with half consumed between the morning and afternoon and half consumed pre-sleep	26	450 g CHO, 24 g PRO, 14 g fat	25
Snijders 2015 (59)	Casein protein	27.5 g (+15 g CHO)	Daily pre-sleep	20	Nonenergetic placebo drink	19
Verdijk 2009 (60)	Casein protein	10 g	Training days = pre- and post-exercise	13	citric acid and CHO (unknown g)	13
Volek 2013 (whey; 61)	Whey protein	21.6 g (+22.5 g CHO and 1.9 g fat)	Training days = post-exercise; non-training days = morning	19	45.2 g CHO	22
Volek 2013 (soy; 61)	Soy protein	20 g (+24.5 g CHO and 1.3 g fat)	Training days = post-exercise; non-training days = morning	22	45.2 g CHO	22
Weisgarber 2012 (62)	Whey protein	0.3 g/kg body mass	Training days = half pre-exercise and the rest throughout the training session	9	0.2 g/kg comstarch and 0.1 g/kg sucrose	8
White 2009 (yogurt; 63)	Yogurt	5 g (+19 g CHO, 200 mg calcium and 80 IU Vit D)	Three yogurts per day	12	25 g CHO	11
White 2009 (whey; 63)	Whey protein	5 g (+20 g CHO)	Training days = post-exercise	12	25 g CHO	11
Willoughby 2007 (64)	Protein blend (whey, milk, casein and AAs)	40 g	Training days = pre- and post-exercise; non-training days = morning	10	40 g CHO	9

Note: EAA = essential amino acids, Vit = vitamin, CHO = carbohydrate, and PRO = protein.