

Supplementary Table S1: Example of a weekly menu for the low carbohydrate, high fat (LCHF) diet.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Pre-training	Peanut Butter cookies Macadamia nuts	Granola Edam cheese	Egg Cheese Chocolate pecan cake Electrolytes/diet coke		Low carb bread, butter & cheese	Egg Cheese Chocolate pecan cake Electrolytes/diet coke	
Breakfast	Granola Greek yoghurt Almond milk	Savory crepe Bacon Avocado		Berry & coconut parfait	Cauliflower rösti Egg Hollandaise sauce		Bircher muesli
Lunch	Caesar salad	Turkey & brie sandwich	Fried caulirice Egg Bacon	Silverside, tomato, cheese & avocado sandwich	Mushroom soup	Frittata Avocado Green salad	Chicken, pesto, cheese & salad sandwich
Dinner	Lamb satay Avocado Green salad Olive oil	Carbonara with zucchini noodles Green salad Olive oil Choc coconut ice-cream	Chicken curry Whipped cream Berries	Beef taco salad Crème fraiche Green salad	Salmon Cauliflower risotto Green salad Berry tiramisu	Beef burgers with low carb bread Chocolate cake with cream	Pizza with cauliflower base Havarti cheese Green salad Olive oil
Snacks	Peanut butter cookies Macadamia nuts	Lemon fat bomb Granola Edam cheese	Vanilla cookie-dough amaze bites Brie cheese Almonds	Nut balls Buttered coffee Choc and pecan cake	Choc pecan cake Chocolate peanut fat bomb Low CHO bread & edam cheese	Peanut butter cookies Vanilla cookie-dough amazebites Brie	Peanut butter cookies Low CHO bread & brie Chunky nut cookies
Recovery	Recovery drink & whey protein	Recovery Drink	Recovery Drink	Double chocolate shake		Recovery drink	

Table adapted with permission from Mirtschin, J.; Forbes, S.; Cato, L.; Heikura, I.; Strobel, N.; Hall, R.; Burke, L. Organisation of dietary control for training-nutrition intervention involving low carbohydrate high fat (LCHF) diet. *Int. J. Sport Nutr. Exerc. Metab.* (In Press).

Supplementary Table S2: Example of a weekly menu for the periodized carbohydrate availability (PCHO) diet.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Pre-training	Gatorade		White bread, honey & butter Juice Gatorade/gel/ lollies		White bread, jam & butter Energy gel Gatorade	White bread, jam & butter Juice Gatorade/gel/ lollies	
Breakfast	Vita-brits Milk Banana Honey/sugar	Pancakes Berries Maple syrup Greek yoghurt		Cereal Skim milk White bread & jam	Omelette Bagel Spreads		Bircher muesli Fruit
Lunch	Ham & salad wrap Fruit Yoghurt	Turkey, cranberry & salad sandwich Yoghurt	Fried Rice Yoghurt	Silverside, tomato & cheese sandwich Yoghurt	Potato soup Bacon Bread Fruit	Frittata Fruit	Chicken, pesto & salad sandwich Juice
Dinner	Chicken stir fry Salad	Pasta with Bolognese sauce Cheese Salad Ice cream & chocolate syrup	Chicken curry Rice Fruit Greek yoghurt Honey	Mexican mince burritos Salad Crème fraiche	Salmon Risotto Salad Juice Fruit & custard	Beef burger Banana bread	Pizza
Snacks	Date balls Chocolate milk Macadamia nuts Rice bar	Rice cakes & peanut butter/jam Dried fruit Skim milk	Nut balls Fresh fruit Chocolate milk Yoghurt	Rice cakes & peanut butter /jam Banana Yoghurt Dried fruit	Rice bar Muesli bar Fresh Fruit Cashews	Rice cakes & peanut butter/jam Fresh fruit Date balls Yoghurt	Date balls Yoghurt Fruit Nut balls
Recovery	Whey protein & water	Banana & berry smoothie	Sustagen recovery drink	Banana & berry smoothie	Whey protein & milk	Sustagen recovery drink	

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Supplementary Table S3: Example of a weekly menu for the high carbohydrate availability (HCHO) control group diet.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Pre-training	White bread, butter & jam Gatorade	Energy gel Muesli bar Gatorade	White bread, honey & butter Juice Gatorade/gel/lollies	Energy gel Muesli bar Gatorade	Energy gel Muesli bar Gatorade	White bread, jam & butter Juice Gatorade/gel/lollies	
Breakfast	Vita-brits Milk Banana Honey/sugar	Pancakes Berries Maple syrup Greek yoghurt		Cereal Skim milk White bread & jam	Omelette Bagel Spreads		Bircher muesli Fruit
Lunch	Ham & salad wrap Fruit Yoghurt	Turkey, cranberry & salad sandwich Yoghurt	Fried rice Yoghurt	Silverside, tomato & cheese sandwich Yoghurt	Potato soup Bacon Bread Fruit	Frittata Fruit	Chicken, pesto & salad sandwich Juice
Dinner	Lamb stir fry Rice	Pasta with Bolognese sauce Cheese Salad Ice cream & chocolate syrup	Chicken curry Rice Fruit Greek yoghurt Honey	Mexican mince burritos Salad Crème fraiche	Salmon risotto Salad Juice Fruit & custard	Beef burger Banana bread	Pizza
Snacks	Date balls Chocolate milk Macadamia nuts Rice bar	Rice cakes & peanut butter/jam Dried fruit Skim milk	Nut balls Fresh Fruit Chocolate milk Yoghurt	Rice cakes & peanut butter /jam Banana Yoghurt Dried fruit	Rice bar Muesli bar Fresh fruit Cashews	Rice cakes & peanut butter/jam Fresh fruit Date balls Yoghurt	Date balls Yoghurt Fruit Nut balls
Recovery	Sustagen recovery drink	Banana & berry smoothie	Sustagen recovery drink	Banana & berry smoothie	Whey protein & milk	Sustagen recovery drink	

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