

### Supplementary Data

**Article title:** Effects of whole-grain barley and oat  $\beta$ -glucans on postprandial glycaemia and appetite:  
a randomized controlled crossover trial

**Journal name:** Food & Function

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**Supplemental Table S1.** Ingredients in the test breads.

<b>Ingredients</b> <b>(Based on 100 g flour)</b>	<b>WB</b>	<b>WWB</b>	<b>BB</b>	<b>OB</b>
White flour	100 g	-	-	-
Whole-wheat flour	-	100 g	-	-
Barley flour	-	-	100 g	-
Oat flour	-	-	-	100 g
Dry yeast	2 g	2 g	2 g	2 g
Sugar	4 g	4 g	4 g	4 g
Salt (NaCl)	2 g	2 g	2 g	2 g
Sunflower oil	4 g	4 g	4 g	4 g
Water	60 g	75 g	75 g	75 g

Abbreviations: BB, barley bread; OB, oat bread, WB, white bread; WWB, whole-wheat bread.

**Supplemental Table S2.** Nutritional composition of component foods in the standard breakfast

<b>Foods</b>	<b>Portion size</b>	<b>Energy</b>	<b>Carbohydrate</b>	<b>Protein</b>	<b>Fat</b>	<b>Fibre</b>
	<b>(g)</b>	<b>(kcal)</b>	<b>(g)</b>	<b>(g)</b>	<b>(g)</b>	<b>(g)</b>
Feta cheese	15	34.8	0.7	1.8	2.7	<0.01
Cheddar cheese	24	79.2	0.5	5.3	6.2	<0.01
Olive	24	57.1	0.3	0.3	4.8	<0.01
Honey	20	64	16.6	0.06	<0.01	<0.01
Black tea	150 ml	-	-	-	-	-

**Supplemental Table S3.** All foods served at the buffet-style lunch (per 100 g)

<b>Foods</b>	<b>Energy (kcal)</b>	<b>Carbohydrate (g)</b>	<b>Protein (g)</b>	<b>Fat (g)</b>	<b>Fibre (g)</b>
Meatballs	196	9.6	14.8	11	1
Tuna	169	<0.01	22.6	8.7	<0.01
Pasta with tomato sauce	281	56	10.4	1.2	4.8
Yogurt	54	6.2	4	1.5	<0.01
Salad (iceberg, red cabbage, and carrot)	21	3.5	1.2	0.2	2.2
White bread	276	50.1	9.4	3.2	4.3
Apple	58	11.9	0.3	0.6	1.9
Banana	79	18.1	0.6	0.1	1.7
Fruit juice	25	6.3	<0.01	<0.01	<0.01
Yogurt drink	43	3.5	2	2.3	<0.01

**Supplemental Table S4.** Participants' dietary intake and physical activity level before each test meal

<b>Variables<sup>a</sup></b>	<b>WB</b>	<b>WWB</b>	<b>BB</b>	<b>OB</b>	<b>p<sup>*</sup></b>
Energy (kcal) <sup>b</sup>	1868±503	1889±442	1958±495	1973±560	0.730
Carbohydrate (%) <sup>b</sup>	45.3±7.4	47.8±11.6	45.3±7.4	43.1±8.1	0.319
Protein (%) <sup>b</sup>	15.4±2.6	16.3±3.4	15.3±3.9	16.3±3.9	0.664
Fat (%) <sup>b</sup>	39.3±6.8	35.9±10.5	39.5±6.2	40.5±6.6	0.198
Dietary fibre (g) <sup>b</sup>	18.0±5.3	22.0±9.1	19.1±9.7	20.9±10.8	0.337
Total MET (min/week)	1459±1022	1247±989	1556±1108	1399±968	0.131

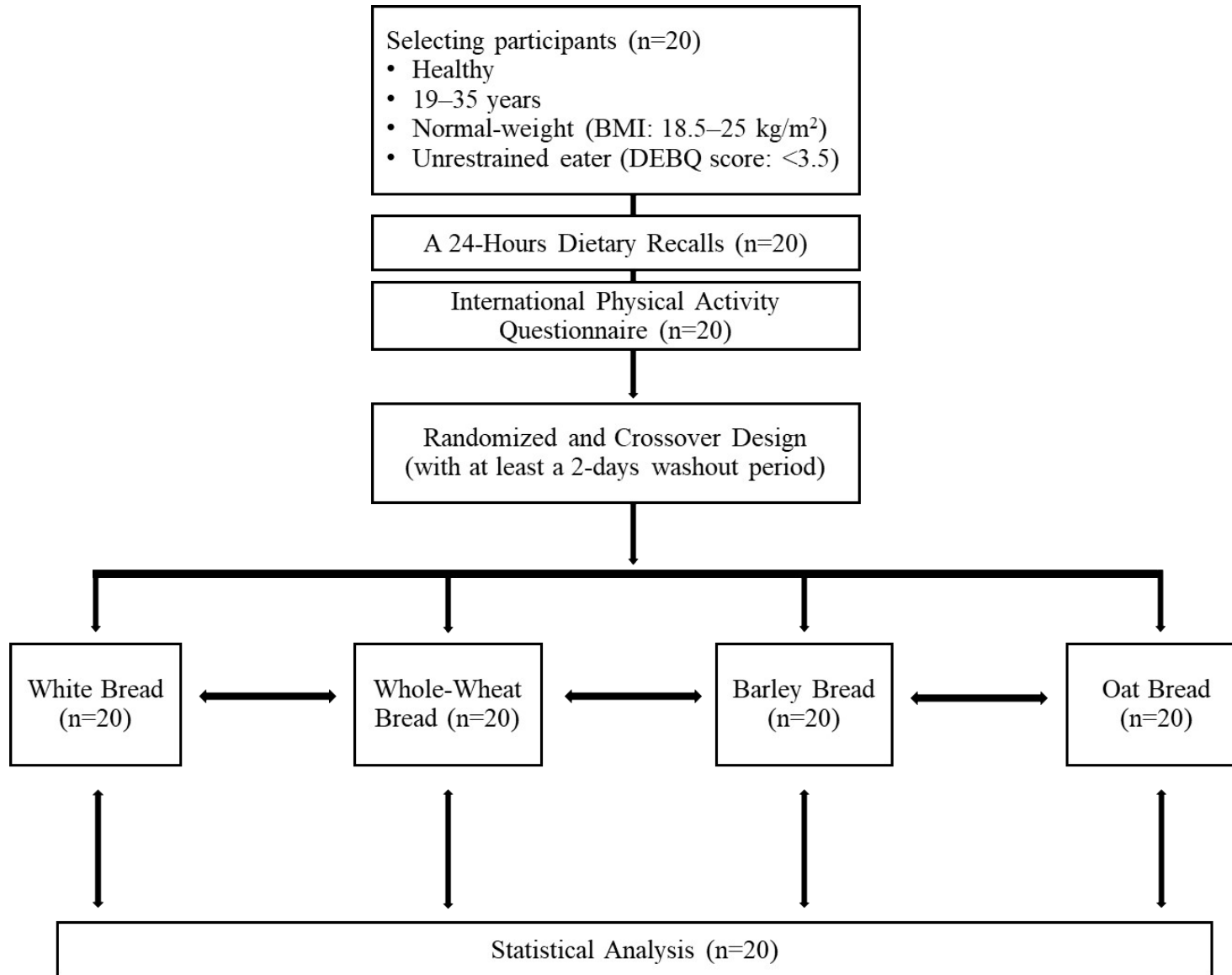
Abbreviations: BB, barley bread; MET, metabolic equivalent task; OB, oat bread, WB, white bread; WWB, whole-wheat bread.

<sup>a</sup>Values were expressed as mean ± SD (n=20).

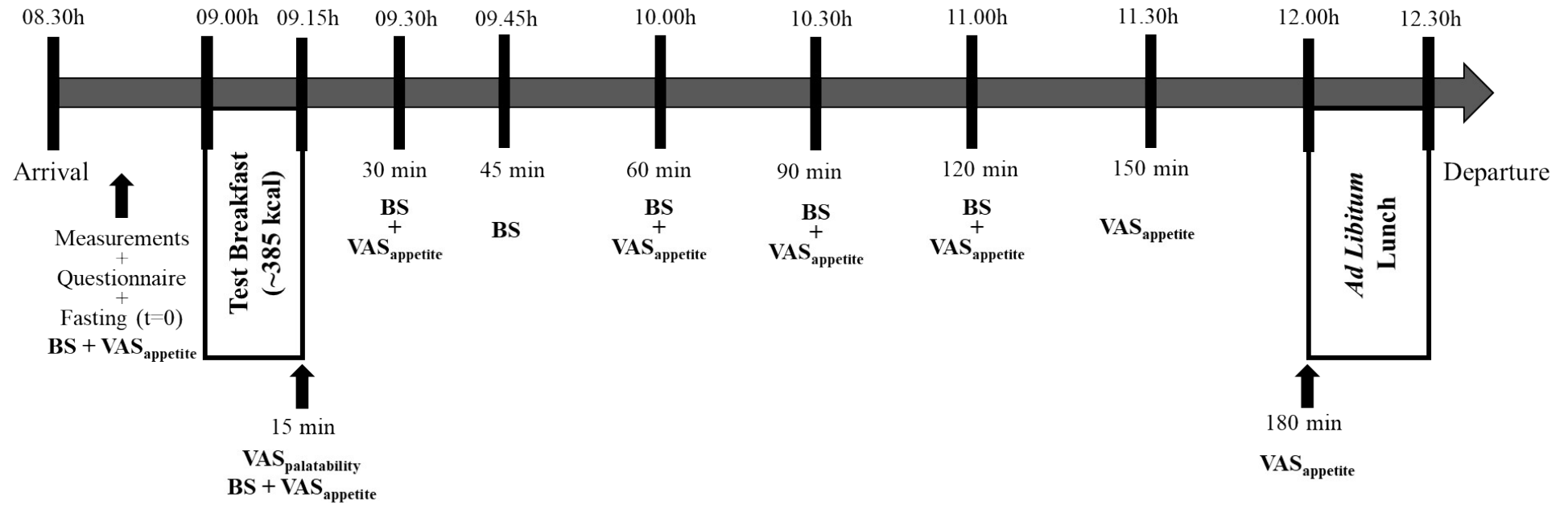
<sup>b</sup>Determined from the 24-hours dietary recalls using BeBiS Nutrition Database software version 8.2.

\*p<0.05 by the ANOVA for repeated measures.





**Supplemental Fig. S1.** Participant recruitment flow diagram. BMI, body mass index; DEBQ, Dutch Eating Behaviour Questionnaire.



**Supplemental Fig. S2.** Study protocol and timeline on test days. BS, blood samples; VAS, visual analogue scale.