

Table 1. Criteria used to calculate carbohydrate quality and fat quality.

Components of dietary index	Index range (points)*	Criteria for minimum index	Criteria for maximum index
Carbohydrate quality index			
Dietary fiber intake (g/d)	1-5	Minimum dietary fiber intake (first quintile)	Maximum dietary fiber intake (fifth quintile)
Glycemic index	1-5	Minimum glycemic index (fifth quintile)	Maximum glycemic index (first quintile)
Ratio whole grains / (whole grains + refined grains or its products)	1-5	Minimum value of this ratio (first quintile)	Maximum value of this ratio (fifth quintile)
Ratio solid carbohydrates/ (solid carbohydrates + liquid carbohydrates)	1-5	Minimum value of this ratio (first quintile)	Maximum value of this ratio (fifth quintile)
Total index (range)	4-20		
Fat quality index			
Ratio monounsaturated fatty acids + polyunsaturated fatty acids / (saturated fatty acid + trans fatty acid)	0·62, 5·92	0·62	5·92

*Proportional dietary index are computed for intakes situated between the maximum and minimum criteria.

Table 2. Baseline main characteristics of the 16841 participants of the Seguimiento Universidad de Navarra (SUN) project according to carbohydrates quality [mean (standard deviations) or percentages]

	Q1	Q2	Q3	Q4	Q5	P Value^a
Score carbohydrates quality	4-8	9-10	11-12	13-14	≥15	
N	3564	3689	3768	2999	2821	
Age (years)	35 (11)	38(12)	39 (12)	39 (12)	47 (13)	
Men (%)	50	46	40	37	29	<0·001 ^b
BMI (kg/m ²)	24 (4)	24 (4)	24 (4)	24 (4)	23 (3)	< 0·001
Physical activity during leisure time (METs-h/week)	19 (21)	20(21)	21 (22)	23 (22)	24 (24)	< 0·001
Smoking status:						< 0·001 ^b
Former smokers (%)	25	26	26	22	22	
Current smokers (%)	24	24	21	19	18	
Hypertension at baseline (%)	6	7	8	8	9	< 0·001 ^b
Diabetes at baseline (%)	1	1	2	2	3	0·001 ^b
Dyslipemia at baseline (%)	4	4	4	4	4	< 0·001 ^b
Educational level (years of education)	5 (2)	5 (2)	5 (2)	5 (2)	5 (2)	0·80
Dietary supplement use	14	16	17	18	22	< 0·001
Mediterranean diet score	3 (2)	4 (2)	4 (2)	5 (2)	5 (2)	< 0·001
Glycemic index	55 (4)	53 (4)	52 (5)	51 (4)	50 (4)	< 0·001
Energy intake (kJ/d)	9314 (2427)	9581 (2577)	9711 (2611)	9824 (2489)	9669 (2397)	< 0·001
Carbohydrate intake (% total energy)	43 (7)	43 (7)	43 (8)	43 (7)	43 (7)	< 0·001
Solid carbohydrates (g/d)	193 (63)	209 (73)	218 (77)	226 (73)	230 (70)	< 0·001
Liquid carbohydrates (g/d)	22 (21)	15 (16)	13 (15)	12 (14)	8 (12)	< 0·001
Protein intake (% total energy)	17 (3)	19 (3)	18 (3)	18 (3)	19 (3)	< 0·001
Fat intake (% total energy)	37 (6)	37 (6)	37 (6)	36 (6)	36 (7)	< 0·001
PUFA intake (% total energy)	6 (2)	5 (2)	5 (2)	5 (1)	5 (1)	< 0·001
SFA intake (% total energy)	13 (4)	13 (3)	13 (3)	12 (3)	12 (3)	< 0·001
<i>n</i> -3 fatty acids	2 (1)	3 (1)	3 (1)	3 (1)	3 (1)	< 0·001
<i>n</i> -6 fatty acids	18 (12)	19 (12)	18 (12)	18 (13)	16 (10)	< 0·001
MUFA intake (% total energy)	16 (4)	16 (4)	16 (4)	16 (4)	16 (4)	< 0·001
Fiber intake (g/d)	18 (5)	23 (8)	26 (9)	31 (10)	36 (10)	< 0·001
Alcohol intake (g/d)	7 (11)	7(10)	7 (10)	7 (10)	6 (10)	0·56

Table 2 (continued). Baseline main characteristics of the 16841 participants of the Seguimiento Universidad de Navarra (SUN) project according to carbohydrates quality [mean (standard deviations) or percentages]

	Q1	Q2	Q3	Q4	Q5	P Value ^a
Score carbohydrates quality	4-8	9-10	11-12	13-14	≥15	
N	3564	3689	3768	2999	2821	
Fruits (g/d)	190 (138)	274 (198)	328 (241)	393 (275)	464 (294)	< 0·001
Vegetables (g/d)	304 (154)	419 (195)	510 (251)	589 (259)	715 (306)	< 0·001
Legumes (g/d)	18 (10)	21 (16)	23 (19)	25 (22)	27 (22)	< 0·001
Dairy products (g/d)	206 (178)	208 (188)	195 (182)	178 (176)	152 (164)	< 0·001
Meats (g/d)	178 (73)	178 (74)	177 (76)	171 (75)	165 (79)	< 0·001
Fish (g/d)	78 (45)	89 (49)	96 (53)	102 (53)	112 (59)	< 0·001
Whole grains (g/d)	0 (3)	2 (9)	7 (19)	19 (32)	37 (41)	< 0·001
Refined grains (g/d)	105 (66)	97 (69)	88 (66)	76 (55)	58 (43)	< 0·001
Olive oil (g/d)	17 (15)	18 (15)	18 (15)	19 (15)	20 (6)	< 0·001
Nuts (g/d)	5 (6)	6 (10)	7 (11)	8 (13)	10 (15)	< 0·001
Zinc (mg/d)	14 (5)	15 (6)	16 (7)	17 (7)	19 (8)	< 0·001
Iodine (µg/d)	276 (152)	298 (156)	311 (156)	320 (161)	328 (169)	< 0·001
Selenium (µg/d)	88 (29)	91 (31)	91 (30)	94 (29)	97 (29)	< 0·001
Iron (mg/d)	14 (4)	16 (5)	17 (5)	18 (5)	20 (5)	< 0·001
Calcium (mg/d)	992 (344)	1102 (367)	1169 (367)	1248 (384)	1298 (401)	< 0·001
Potassium (mg/d)	3710 (972)	4241 (1147)	4624 (1292)	5019 (1302)	546 (1331)	< 0·001
Phosphorus (mg/d)	1630 (399)	1771 (432)	1857 (442)	1950 (449)	2047 (473)	< 0·001
Magnesium (mg/d)	335 (82)	374 (95)	402 (104)	439 (106)	477 (107)	< 0·001
Chromium (µg/d)	75 (31)	77 (32)	77 (32)	80 (30)	84 (30)	< 0·001
Vitamin B ₁ (mg/d)	2 (1)	2 (1)	2 (1)	2 (1)	2 (1)	< 0·001
Vitamin B ₂ (mg/d)	2 (1)	2 (1)	2 (1)	2 (1)	2 (1)	< 0·001
Vitamin B ₃ (mg/d)	38 (10)	40 (11)	42 (11)	44 (11)	45 (11)	< 0·001
Vitamin B ₆ (mg/d)	2 (1)	3 (1)	3 (1)	3 (1)	3 (1)	< 0·001
Vitamin B ₁₂ (µg/d)	8 (4)	9 (4)	9 (4)	10 (4)	10 (5)	< 0·001
Vitamin C (mg/d)	190 (89)	237 (109)	270 (124)	311 (127)	355 (137)	< 0·001
Vitamin A (µg/d)	1132 (607)	1563 (845)	1911 (1066)	2223 (1128)	2659 (1273)	< 0·001
Vitamin D (µg/d)	3 (2)	4 (2)	4 (2)	4 (3)	4 (3)	< 0·001
Vitamin E (mg/d)	6 (3)	7 (4)	7 (4)	7 (4)	8 (4)	< 0·001

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	Q1	Q2	Q3	Q4	Q5	P Value^a
Score carbohydrates quality	4-8	9-10	11-12	13-14	≥15	
N	3564	3689	3768	2999	2821	
Folic acid (µg/d)	292 (100)	356 (121)	401 (142)	451 (142)	512 (152)	< 0.001

^a P values are shown for analysis of variance test adjusted for sex and age

^b P values are shown for analysis of chi-square test