

Table 1. Baseline characteristics of participants according to their frequency of consumption of fried foods. The SUN cohort, 1999-2012.

	Baseline consumption of fried foods (Times per week)		
	0-2/week	> 2-4/week	> 4/week
N	5,689	4,520	3,470
Age (y)	36.1 (10.5)	36.9 (10.9)	36.6 (11.1)
Men (%)	28.7	39.1	47.8
BMI (kg/m ²)	22.9 (3.2)	23.3 (3.3)	23.4 (3.3)
Baseline BP mmHg			
Systolic	112.3 (10.8)	113.5 (11.2)	114.5 (11.0)
Diastolic	68.3 (8.1)	69.1 (8.2)	69.6 (8.2)
Physical activity (METs/week)	22.2 (23.7)	21.2 (22.0)	20.2 (21.3)
Hypercholesterolemia (%)	14.3	12.8	14.6
Family history of hypertension (%)	41.0	41.0	38.0
Smoking status (%)			
Current	21.9	23.1	23.0
Former	28.5	25.6	26.2
TV watching (h/day)	1.0 (0.8)	1.0 (0.8)	1.0 (0.8)
Total energy intake (kcal/d)	2,201 (587)	2,418 (589)	2,566 (595)
Macronutrients (% energy)			
Carbohydrate intake	44 (8)	44 (7)	43 (7)
Protein intake	19 (3)	18 (3)	17 (3)
Fat intake:	36 (7)	37 (7)	38 (6)

SFA	12 (3)	13 (3)	13 (3)
MUFA	15 (4)	16 (4)	16.2 (3)
PUFA	5 (1)	5 (1)	6 (2)
Alcohol	2 (3)	2 (3)	2 (3)
Intake of			
Sodium (g/day)	3.0 (2.1)	3.5 (2.2)	3.7 (2.3)
Potassium (g/day)	4.7 (1.7)	4.7 (1.5)	4.7 (1.4)
Magnesium (mg/day)	410.3 (128.8)	415.8 (118.7)	418.1 (113.5)
Fiber (g/day)	28.2 (13.1)	26.8 (11.4)	25.9 (10.6)
Caffeine (mg/day)	42.6 (39.3)	44.1 (39.1)	46.3 (40.5)
Fruit (g/day)	367.4 (315.7)	334.4 (299.0)	299.4 (245.3)
Vegetable (g/day)	573.2 (371.0)	495.2 (294.8)	467.8 (299.4)
Low-fat dairy (g/day)	258.2 (254.9)	213.2 (242.4)	181.0 (230.7)
High-fat dairy (g/day)	173.7 (187.7)	214.7 (197.4)	238.3 (210.9)
Sweets (g/day)	42.0 (34.1)	51.2 (35.4)	57.2 (37.4)
Soft drinks (ml/day)	34.1 (70.5)	43.1 (80.8)	54.1 (99.0)
Fast food (g/day)	19.8 (19.3)	23.0 (20.8)	24.2 (21.3)

Values are expressed as mean (SD), unless otherwise stated. BMI, Body mass index;

BP, Blood Pressure; SFA, saturated fatty acid; MUFA, Monounsaturated fatty acid;

PUFA, polyunsaturated fatty acid. MET, metabolic equivalents

Table 2. Cox Proportional Hazard Ratio (HR) and 95% confidence intervals (CI) of incident hypertension according to baseline frequency of fried food consumption in 13,679 participants of the SUN Project (1999-2012).

	Baseline consumption of fried foods (Times per week)			
	0-2/week	> 2-4/week	> 4/week	p for trend
Incident cases	419	441	372	
Person-years	39,102	32,403	26,581	
Crude	1.00 Ref.	1.31 (1.14-1.49)	1.38 (1.20-1.59)	<0.001
Age and Sex- adjusted model	1.00 Ref.	1.19 (1.04-1.37)	1.19 (1.04-1.38)	0.017
Multivariable adjusted model ¹	1.00 Ref.	1.20 (1.04-1.37)	1.18 (1.01-1.38)	0.042
Multivariable adjusted model ²	1.00 Ref.	1.18 (1.03-1.36)	1.21 (1.04-1.41)	0.009

¹ Adjusted for: sex, age, family history of hypertension, self-reported hypercholesterolemia, physical activity, smoking status, total energy intake, alcohol intake, energy adjusted sodium, potassium, caffeine, fiber, olive oil, fruits, vegetables, low fat and high fat dairy, sugar-sweetened beverage, fast food and sweets consumption, and time spent watching tv.

² Additionally adjusted for baseline BMI

Table 3. Cox Proportional Hazard Ratio (HR) and 95% confidence intervals (CI) of incident hypertension according to baseline frequency of fried food consumption, stratified according to fried food consumption at home or away from home

	Baseline consumption of fried foods (Times per week)	
	0-2/week	> 2/week
<i>Fried food at home^a</i>		
Incident cases	449	777
Person-year	41,323	56,382
Crude	1.00 Ref.	1.32 (1.18-1.48)
Age-and-sex adjusted	1.00 Ref.	1.16 (1.04-1.31)
Multivariable adjusted model ¹	1.00 Ref.	1.16 (1.02-1.31)
Multivariable adjusted model ²	1.00 Ref.	1.16 (1.03-1.32)
<i>Fried food away from home^b</i>		
Incident cases	1,041	149
Person-year	86,654	9,791
Crude	1.00 Ref.	1.28 (1.08-1.52)
Age-and-sex adjusted	1.00 Ref.	1.22 (1.03-1.46)
Multivariable adjusted model ¹	1.00 Ref.	1.18 (0.99-1.41)
Multivariable adjusted model ²	1.00 Ref.	1.16 (0.97-1.38)

^a We included 13,629 participants for this analysis (50 participant excluded due to missing information in this variable) and we found 1226 incident cases of hypertension.

^b We included 13,453 participants for this analysis (226 participant excluded due to missing information in this variable) and we found 1190 incident cases of hypertension.

¹ Adjusted for: sex, age, family history of hypertension, self-reported hypercholesterolemia, physical activity smoking status, total energy intake, alcohol intake, energy adjusted sodium, potassium, caffeine, fiber, olive oil, fruits, vegetables, low fat and high fat dairy, sugar-sweetened beverage, fast food, sweets consumption, and time spent watching tv.

² Additionally adjusted for baseline BMI

Table 4. Sensitivity analyses: Cox Proportional Multivariate-adjusted Hazard Ratio (HR) and 95% confidence intervals (95%CI) of hypertension associated with highest category (> 4/week) of fried foods consumption taking as reference category the lowest consumption of fried food (< 2/week)

	n	HTA (%)	HR (95% CI)*	p for trend
Overall	13,679	1,232 (9.0%)	1.22 (1.04-1.42)	0.015
Sensitivity analyses:				
Considering early cases of hypertension as non-cases	13,679	1,002 (7.3%)	1.25 (1.06-1.48)	0.011
Considering late cases of hypertension as non-cases	13,679	962 (7.0%)	1.25 (1.05-1.49)	0.011
Excluding from the analyses all incident cases of chronic disease	13,111	1,120 (8.5%)	1.14 (0.97-1.34)	0.181
Setting different energy limits: percentiles 5 to 95	13,698	1,192 (8.7%)	1.22 (1.05-1.43)	0.020
Excluding participants who left ≥ 9 items in blank in the FFQ	11,246	928 (8.2%)	1.28 (1.07-1.52)	0.043
Including those who reported SBP \geq 140 and or DBP \geq 90 at baseline	14,033	1,379 (9.8%)	1.19 (1.03-1.38)	0.026

* Adjusted for: sex, age, baseline BMI, family history of hypertension, self-reported hypercholesterolemia, total energy intake, smoking status, alcohol intake, energy adjusted sodium, potassium, caffeine, fiber, olive oil, fruits, vegetables, low fat and high fat dairy consumption, sugar-sweetened beverage, fast food, sweets consumption, and time spent watching tv.

FFQ: Food frequency questionnaire

HTA: Hypertension

SBP: Systolic blood pressure

DBP: Diastolic blood pressure

Supplemental table. Food items and serving size of fried food considered from the food frequency questionnaire (FFQ).

Food items	Serving size
Eggs	1 (60 g)
Poultry	150 g
Red meat (beef, veal, pork, lamb, rabbit)	150 g
Liver/entrails (brain, heart)	100 g
Sausages and meat products	50 g
Hamburger	1 (100 g)
Bacon	50 g
Fish (white/blue)	150 g
Codfish	150 g
Shellfish	150 g
Chips/French fries	150 g
Doughnut/<i>churro</i>	1 doughnut/100 g <i>churro</i>
Croquette	135 g