Supplemental Table 1. Classification of items of the food frequency questionnaire according to degree of processing (NOVA classification)

NOVA GROUPS
Unprocessed or minimally processed foods (Group 1)
Fruit, vegetables, legumes, eggs, meats, poultry, fish and seafood, nuts, plain yogurt, milk (whole, semi-skimmed, and non-fat), natural juice, coffee and tea
Processed culinary ingredients (Group 2)
Sugar, honey, jam, vegetable oils (olive, sunflower) and butter
Processed foods (Group 3)
Cheeses, cured traditional ham, canned fish, breads (white and whole), olives, beer and wine
Ultra-processed foods (Group 4)
Ham, processed meat (cold cuts, sausage, hamburger), pate, foie-gras, ultra-processed cheese, salty snacks, sauces and dressings, liquors, sugar sweetened beverages, juice boxes, milkshakes, cookies, chocolate cookies, muffins, doughnuts or other non-handmade pastries, churros, chocolates and candies, breakfast cereals, sweetened yoghurt sugared 'fruit' yoghurts, Petit Suisse, ice cream and margarine

Supplemental Table 2. Cox proportional hazard ratios (Wald's 95% CI) for all-cause mortality according to ultra-processed food consumption (measured as grams/day) in the DRECE Study

Variables	p-value	HR	95% CI
Model 1[a] AIC= 6697.31 C-index=0.84 (445 Deaths)			
Age, years	<0.0001	1.10	(1.09 to 1.11)
Sex (female)	<0.0001	0.44	(0.36 to 0.53)
Energy from ultra-processed food, grams/day*	**0.0293**	**1.04**	**(1.01 to 1.08)**
Schoenfeld's global test	0.3001		
Model 2[b] AIC= 6324.70 C-index=0.84 (424 Deaths)			
Age, years	<0.0001	1.10	(1.09 to 1.11)
Sex (female)	<0.0001	0.47	(0.37 to 0.59)
BMI, kg/m^2	0.0003	1.04	(1.02 to 1.07)
Physical activity (yes)	0.2609	0.90	(0.74 to 1.09)
Alcohol intake, servings per day	0.4696	1.00	(0.99 to 1.03)
Smokers (yes)	<0.0001	1.62	(1.30 to 2.02)
Total energy intake, 1000 kcal/day	0.1049	0.85	(0.70 to 1.03)
Energy from ultra-processed food, grams/day*	**0.0024**	**1.06**	**(1.02 to 1.10)**
Schoenfeld's global test	0.7130		
Model 3[c] AIC= 4346.50 C-index=0.85 (303 Deaths)			
Age, years	<0.0001	1.10	(1.08 to 1.11)
Sex (female)	<0.0001	0.45	(0.34 to 0.59)
BMI, kg/m^2	0.0052	1.04	(1.01 to 1.07)
Physical activity (yes)	0.0986	0.82	(0.65 to 1.04)
Alcohol intake, servings per day	0.8560	0.99	(0.97 to 1.02)
Smokers (yes)	0.0005	1.58	(1.22 to 2.05)
Total energy intake, 1000 kcal/day	0.8834	0.98	(0.78 to 1.23)
Family history of CVD	0.3879	1.12	(0.86 to 1.46)
History of Diabetes	<0.0001	2.47	(1.60 to 3.80)
History of Hypertension	0.2450	1.22	(0.87 to 1.71)
History of Angor	0.4960	1.30	(0.61 to 2.70)
History of Myocardial infarction	0.0032	3.80	(1.56 to 9.26)
History of Atherosclerosis	0.0267	1.65	(1.06 to 2.57)
Energy from ultra-processed food, grams/day*	**0.0184**	**1.04**	**(1.01 to 1.10)**
Schoenfeld's global test	0.0741		

*Calculated for every 100 grams/day

[a]Model 1 was adjusted for age and sex

[b]Model 2 was adjusted for the variables in Model 1 plus body mass index, physical activity, alcohol intake, smoking status and total energy intake

[c]Model 3 was adjusted for the variables in Model 2 plus family history of CVD, history of diabetes, hypertension, angor, myocardial infarction and atherosclerosis

Supplemental Fig 1. Subgroup analyses by sex performed in model 3. Cox proportional hazard ratios (Wald's 95% CI) for all-cause mortality of UPFs consumption measured as percentage of total energy intake and grams/day

Supplemental Fig. 1

	HR (95% CI)
Overall (% of total energy)	1.15 (1.03 to 1.27)
Overall (grams/day)	1.04 (1.01 to 1.10)
Subgroup analyses	
Male (% of total energy)	1.23 (1.08 to 1.40)
Male (grams/day)	1.05 (0.98 to 1.11)
Female (% of total energy)	1.00 (0.90 to 1.20)
Female (grams/day)	1.05 (0.96 to 1.13)

0.71   1.5

Hazard ratio (95% CI)