Supplemental Table 1. Variance inflation factors of variables included in multivariable adjusted models.

Variable	Tolerance	VIF
Tertiles of ultra-processed foods	0.81	1.23
Sex	0.91	1.10
Age	0.59	1.71
Energy intake	0.94	1.06
Marital status	0.72	1.39
Education status	0.93	1.08
Physical activity	0.94	1.06
House ownership status	0.85	1.18
Family size	0.89	1.12
Smoking status	0.94	1.06
Antihyperlipidemic drug usage	0.88	1.14
Body mass index	0.95	1.06

Abbreviations: VIF: variance inflation factor.

Supplemental Table 2. Multivariate adjusted odds ratios (ORs) and 95% confidence intervals (CIs) for HTGW phenotype across energy-adjusted tertiles of ultra-processed foods intake, excluding participants with type 2 diebetes (n=28)[1]

	Tertiles of energy-adjusted ultra-processed foods intake				
	T_1 (n=160)	T_2 (n=170)	T_3 (n=170)	P-trend[2]	Per 1 tertile increase
Ultra-processed foods intake(g/d)	< 91.62	91.62 - 157.34	> 157.34		
Cases	28	33	47		
Crude	1.00 (Ref.)	1.14 (0.65, 1.98)	**1.80 (1.06, 3.06)**	**0.03**	**1.36 (1.04, 1.77)**
Model 1	1.00 (Ref.)	1.55 (0.85, 2.83)	**2.66 (1.46, 4.84)**	**0.01**	**1.64 (1.22, 2.21)**
Model 2	1.00 (Ref.)	1.44 (0.78, 2.66)	**2.41 (1.31, 4.45)**	**0.01**	**1.56 (1.15, 2.12)**
Model 3	1.00 (Ref.)	1.45 (0.74, 2.83)	**2.56 (1.31, 4.99)**	**0.01**	**1.61 (1.16, 2.25)**

[1]All values are odds ratios and 95% confidence intervals. Model 1: Adjusted for age, sex, and energy intake; Model 2: Additionally adjusted for marital status, education, smoking, physical activity, house ownership status, family size, and antihyperlipidemic drug usage; Model 3: Additionally adjusted for body mass index.

[2]P-trend was obtained by treating tertiles of ultra-processed food intake as a continuous rather than categorical variable. Bold values indicate P<0.05.

Abbreviation: Ref: reference.

Supplemental Table 3. Multivariate adjusted odds ratios (ORs) and 95% confidence intervals (CIs) for HTGW phenotype across energy-adjusted tertiles of components of ultra-processed foods[1]

	Tertiles of energy-adjusted ultra-processed foods intake			
	T_1 (n=176)	T_2 (n=176)	T_3 (n=176)	P-trend[2]
Industrial breads and cakes				
Cases	38	31	44	
Crude	1.00 (Ref.)	0.78 (0.46, 1.32)	1.21 (0.74, 1.99	0.44
Fully-adjusted model	1.00 (Ref.)	0.93 (0.50, 1.71)	1.42 (0.79, 2.57)	0.23
Processed meats and fast foods				
Cases	32	33	48	
Crude	1.00 (Ref.)	1.04 (0.61, 1.78)	**1.69 (1.02, 2.82)**	**0.04**
Fully-adjusted model	1.00 (Ref.)	1.04 (0.54, 1.99)	**1.88 (1.04, 3.45)**	**0.03**
Sweets				
Cases	35	36	42	
Crude	1.00 (Ref.)	0.97 (0.59, 1.60)	0.81 (0.49, 1.36)	0.44
Fully-adjusted model	1.00 (Ref.)	1.07 (0.59, 1.96)	0.97 (0.54, 1.74)	0.92
Non-dairy beverages				
Cases	36	31	46	
Crude	1.00 (Ref.)	0.83 (0.49, 1.42)	1.38 (0.84, 2.27)	0.19
Fully-adjusted model	1.00 (Ref.)	0.85 (0.44, 1.65)	1.39 (0.76, 2.57)	0.22
Dairy beverages				
Cases	39	36	38	
Crude	1.00 (Ref.)	0.90 (0.54, 1.51)	1.14 (0.61, 2.13)	0.90
Fully-adjusted model	1.00 (Ref.)	0.97 (0.58, 1.61)	1.11 (0.59, 2.10)	0.76
Potato chips and salty snacks				
Cases	39	35	39	
Crude	1.00 (Ref.)	0.87 (0.52, 1.46)	1.00 (0.60, 1.66)	<0.99
Fully-adjusted model	1.00 (Ref.)	0.98 (0.52, 1.85)	1.23 (0.67, 2.26)	0.50
Oils and sauces				
Cases	35	36	42	
Crude	1.00 (Ref.)	1.04 (0.61, 1.75)	1.26 (0.76, 2.10)	0.36
Fully-adjusted model	1.00 (Ref.)	1.25 (0.66, 2.39)	1.43 (0.77, 2.67)	0.26

[1]All values are odds ratios and 95% confidence intervals. Fully-adjusted model: Adjusted for age, sex, energy intake, marital status, education, smoking, physical activity, house ownership status, family size, antihyperlipidemic drug usage, and body mass index.
[2]P-trend was obtained by the use of tertiles of ultra-processed food intake as a continuous rather than categorical variable. Bold values indicate P<0.05.
Abbreviation: Ref: reference.

Supplemental Table 4. Linear associations between tertiles of ultra-processed foods components and oxidative stress and inflammation biomarkers[1]

	Crude	Fully-adjusted model
Industrial breads and cakes		
MDA (nmol/mL)	**10.301 (0.827, 19.774)**	8.293 (-1.571, 18.157)
SOD (Unit)	0.008 (-0.044, 0.060)	-0.009 (-0.063, 0.044)
GPX (mU/mL)	0.372 (-0.024, 0.768)	0.310 (-0.104, 0.724)
CRP (mg/L)	0.005 (-0.302, 0.311)	0.104 (-0.216, 0.424)
Processed meats and fast foods		
MDA (nmol/mL)	**10.902 (1.434, 20.371)**	9.126 (-0.761, 19.013)
SOD (Unit)	0.040 (-0.011, 0.092)	0.028 (-0.025, 0.082)
GPX (mU/mL)	0.301 (-0.095, 0.697)	0.230 (-0.186, 0.646)
CRP (mg/L)	-0.056 (-0.363, 0.250)	0.033 (-0.288, 0.354)
Sweets		
MDA (nmol/mL)	**9.500 (0.006, 18.993)**	8.723 (-0.755, 18.202)
SOD (Unit)	**-0.072 (-0.123, -0.020)**	**-0.072 (-0.123, -0.021)**
GPX (mU/mL)	0.218 (-0.179, 0.615)	0.211 (-0.188, 0.610)
CRP (mg/L)	0.005 (-0.302, 0.312)	0.022 (-0.286, 0.329)
Non-dairy beverages		
MDA (nmol/mL)	3.314 (-6.182, 12.811)	2.888 (-6.770, 12.546)
SOD (Unit)	0.024 (-0.028, 0.076)	0.007 (-0.045, 0.060)
GPX (mU/mL)	0.145 (-0.251, 0.541)	0.110 (-0.296, 0.515)
CRP (mg/L)	-0.039 (-0.345, 0.267)	0.005 (-0.308, 0.317)
Dairy beverages		
MDA (nmol/mL)	**11.171 (1.718, 20.623)**	8.406 (-1.397, 18.208)
SOD (Unit)	-0.002 (-0.054, 0.050)	-0.011 (-0.065, 0.042)
GPX (mU/mL)	0.298 -0.098, 0.694)	0.221 (-0.191, 0.633)
CRP (mg/L)	-0.107 (-0.413, 0.199)	-0.017 (-0.335, 0.302)
Potato chips and salty snacks		
MDA (nmol/mL)	7.937 (-1.539, 17.414)	4.448 (-5.624, 14.521)
SOD (Unit)	-0.024 (-0.076, 0.028)	-0.043 (-0.097, 0.012)
GPX (mU/mL)	-0.013 (-0.410, 0.383)	-0.147 (-0.569, 0.276)
CRP (mg/L)	-0.029 (-0.335, 0.277)	0.098 (-0.229, 0.424)
Oils and sauces		
MDA (nmol/mL)	7.083 (-2.399, 16.564)	4.641 (-5.140, 14.423)
SOD (Unit)	-0.003 (-0.055, 0.049)	-0.014 (-0.067, 0.039)
GPX (mU/mL)	0.095 (-0.302, 0.491)	0.008 (-0.402, 0.419)
CRP (mg/L)	0.084 (-0.222, 0.390)	0.178 (-0.139, 0.494)

[1]All values are B coefficients and 95% confidence intervals. Fully-adjusted model: Adjusted for age, sex, and body mass index.

Bold values indicate P<0.05.

Abbreviation: MDA, malondialdehyde; SOD, superoxide dismutase; GPX, glutathione peroxidase; CRP, C-reactive protein.