



Figure 1S. Flowchart of participants.

Table S1. Scoring of the 13 main food categories for the calculation of the MDA score.

	Score 0	Score 1	Score 2
<b>Milk and dairy products</b>	less than 4 times a week	5/6 times a week	1 or more times a day
<b>Fish</b>	1 or more times a day or less than 4 times a month	once a week or 5/6 times a week	2-4 times a week
<b>Egg</b>	more than 4 times a week or less than 4 times a month	1 time a week	2-4 times a week
<b>White meat</b>	more than 4 times a week or almost never	less than 4 times a month	1-4 times a week
<b>Red meat and cold cuts</b>	more than 4 times a week or almost never	2-4 times a week	1-4 times a month
<b>Wine</b>	less than 5 times a month	more than 1 time a day or 2-6 times a week	1 time a day
<b>Sweet desserts</b>	more than 4 times a week	2-4 times a week	less than 5 times a month
<b>Olive oil</b>	less than 1 time a day	once a day	more than once a day
<b>Vegetables</b>	less than 5 times a week	1 time a day or 5/6 times a week	more than once a day
<b>Fruit</b>	less than 5 times a week	1 time a day or 5/6 times a week	more than once a day
<b>Nuts and seeds</b>	less than 5 times a week	5/6 times a week	1 or more times a day
<b>Cereals and grain</b>	less than 5 times a week	5-7 times a week	more times a day
<b>Legumes</b>	more than 4 times a week or less than 4 times a month	1 time a week	2-4 times a week

Table S2. Percentage of compliance with the recommendations of the Mediterranean diet pyramid for the consumption of 13 main food categories.

	MDA score		
	Score 0	Score 1	Score 2
<b>Sweet deserts (%)</b>	68.1	16.5	15.4
<b>Nuts and seeds (%)</b>	73.0	7.6	19.4
<b>Red and processed meat (%)</b>	39.1	41.5	19.4
<b>Wine (%)</b>	33.9	42.4	23.7
<b>Egg (%)</b>	27.2	39.7	33.0
<b>Legumes (%)</b>	20.3	40.4	39.3
<b>Fish (%)</b>	20.5	36.8	42.6
<b>White meat (%)</b>	12.5	15.8	71.7
<b>Olive oil (%)</b>	4.9	18.1	77.0
<b>Fruit (%)</b>	5.6	10.5	83.9
<b>Grain (%)</b>	4.5	7.8	87.5
<b>Milk and dairy (%)</b>	7.1	4.9	87.9
<b>Vegetables (%)</b>	1.8	5.4	92.9

Table S3A. Percentage of subjects with MetS or with positive criteria for diagnosis of MetS stratified by MDA score tertiles or PRAL quartiles.

	Low-MDA	Medium-MDA	High-MDA	#p-value	§p-value	Alkaline-PRAL	Neutral-PRAL	Light-PRAL	Strong-PRAL	#p-value	§p-value
<b>MetS, yes (%)</b>	19.7	16.54	14.2	0.445	0.215	10.3	15.7	17.9	22.2	0.124	0.026*
<b>Waist circ., yes (%)</b>	48.53	38.4	45.7	0.217	0.647	43.2	40.7	50.9	42.9	0.439	1
<b>BP, yes (%)</b>	81.6	81.9	72.8	0.083	0.079	73.0	78.8	76.8	84.8	0.185	0.034*
<b>TG, yes (%)</b>	14.7	8.2	10.4	0.19	0.294	5.6	11.1	11.7	16.8	0.081	0.016*
<b>HDL-C, yes (%)</b>	8.1	5.1	6.4	0.616	0.658	3.7	7.4	10.9	4.6	0.139	1
<b>Glucose, yes (%)</b>	19.1	20.3	18.5	0.957	1	13.1	17.6	19.6	27.5	0.057	0.011*

Data is expressed as percentage of subject with MetS or positive criteria for MetS. #p-value is based on Chi-squared tests to compare the MDA or PRAL subgroups. §p-value is based on Fisher's exact test to compare High-MDA against Low-MDA or Strong-PRAL against Alkaline-PRAL. MDA, Mediterranean diet adherence; PRAL, potential renal acid load; MetS, Metabolic syndrome; Waist circ., waist circumference; BP, Blood pressure; TG, triglycerides; HDL-C, high-density lipoprotein cholesterol.

Table S3B. Percentage of subjects with MetS or with positive criteria for diagnosis of MetS stratified by NEAP quartiles.

	Q1-NEAP	Q2-NEAP	Q3-NEAP	Q4-NEAP	#p-value	§p-value
<b>MetS, yes (%)</b>	11.2	15.6	17.3	22.2	0.185	0.044*
<b>Waist circ., yes (%)</b>	42.0	40.2	48.2	47.3	0.473	0.441
<b>BP, yes (%)</b>	70.5	77.7	78.6	86.6	0.064	0.008**
<b>TG, yes (%)</b>	7.1	8.9	11.6	16.1	0.134	0.058
<b>HDL-C, yes (%)</b>	4.5	7.1	7.1	7.1	0.814	0.569
<b>Glucose, yes (%)</b>	10.7	22.3	19.6	23.2	0.072	0.019*

Data is expressed as percentage of subject with MetS or positive criteria for MetS. # p-value is based on Chi-squared tests to compare the NEAP subgroups. § p-value is based on Fisher's exact test to compare Q1-NEAP against Q4-NEAP. NEAP, net-endogenous acid production; MetS, Metabolic syndrome; Waist circ., waist circumference; BP, Blood pressure; TG, triglycerides; HDL-C, high-density lipoprotein cholesterol.

Table 4S. Cardiovascular Risk Scores per NEAP-quartile.

	Q1-NEAP	Q2-NEAP	Q3-NEAP	Q4-NEAP	#p-value	§p-value
<b>ASCVD Risk Score</b>	9,9 (2,9 - 34,2)	12,0 (3,5 - 31,4)	12,7 (2,7 - 35,8)	12,8 (2,9 - 36,6)	0.138	0.053
<b>European SCORE</b>	3,2 (1,0 - 14,9)	3,9 (1,2 - 13,3)	3,7 (1,1 - 15,4)	4,7 (1,0 - 15,0)	0.383	0.103
<b>Cuore Risk Score</b>	3,7 (1,1 - 14,7)	5,8 (1,5 - 20,9)	4,9 (1,2 - 19,9)	5,6 (1,2 - 17,9)	0.036*	0.017*

Data is expressed as median (95% CI). #p-value is based on Kruskal-Wallis test to compare the NEAP quartiles. §p-value is based on Man-Whitney Test to compare Q4-NEAP against Q1-NEAP. NEAP, net-endogenous acid production; ASCVD, AtheroSclerotic CardioVascular Disease; SCORE, Systematic COronary Risk Evaluation.

Table S5. Correlation analysis between MDA, PRAL or NEAP and Cardiovascular Risk Scores.

	MDA	PRAL (mEq/day)	NEAP (mEq/day)
	$r_s$	$r_s$	$r_s$
<b>ASCVD Risk</b>	0.013	0.137**	0.103*
<b>European SCORE</b>	0.023	0.102*	0.083
<b>Cuore Score Risk</b>	-0.103	0.180**	0.120*

MDA, Mediterranean diet adherence; PRAL, potential renal acid load; NEAP, net-endogenous acid production;  $r_s$ , Spearman's correlation coefficient; ASCVD, AtheroSclerotic CardioVascular Disease; SCORE, Systematic COronary Risk Evaluation. \* p-value <0.05, \*\* p-value <0.01.