

## **DATA SUPPLEMENT**

### **Adherence to Recommended Eating Patterns is Associated With Lower Risk of Peripheral Arterial Disease: Results From the Women's Health Initiative**

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**Table S1. Alternate Mediterranean Diet (aMED) components and criteria for scoring**

<b>Component</b>	<b>Criteria for min point (0)</b>	<b>Criteria for max point (1)</b>
Vegetables excluding potatoes	< Median	≥ Median
Fruit excluding juices	< Median	≥ Median
Whole grain	< Median	≥ Median
Nuts	< Median	≥ Median
Legumes	< Median	≥ Median
Red and processed meat	≥ Median	< Median
Fish and shellfish	< Median	≥ Median
MUFA:SFA ratio	< Median	≥ Median
Alcohol	< 5 or >15 g/d	5-15 g/d
<b>TOTAL</b>	<b>0</b>	<b>9</b>

MUFA, monounsaturated fatty acids; SFA, saturated fatty acids.

**Table S2. Alternative Healthy Eating Index (AHEI)-2010 components and criteria for scoring**

<b>Component</b>	<b>Criteria for min point (0)</b>	<b>Criteria for max point (10)</b>
Vegetables excluding potatoes	0	≥ 5 servings/d
Fruit excluding juices	0	≥ 4 servings/d
Whole grain	0	≥ 5 servings/d
Nuts and legumes	0	≥ 1 serving/d
Marine PUFA (EPA + DHA)	0	≥ 250 mg/d
Non-marine PUFA	≤ 2% of total energy	≥ 10% of total energy
SSB and fruit juices	≥ 1 serving/d	0
Red and processed meat	≥ 1.5 serving/d	0
Trans fat	≥ 4% of total energy	≤ 0.5% of total energy
Sodium	Highest decile	Lowest decile
Alcohol	0 or ≥ 2.5 drinks/d	0.5-1.5 drinks/d
<b>TOTAL</b>	<b>0</b>	<b>110</b>

EPA, eicosapentaenoic acid; DHA, docosahexaenoic acid; MUFA, monounsaturated fatty acids; SFA, saturated fatty acids; SSB, sugar sweetened beverages.

**Table S3. Dietary Approaches to Stop Hypertension (DASH) diet components and criteria for scoring**

<b>Component</b>	<b>Criteria for min point (1)</b>	<b>Criteria for max point (5)</b>
Vegetables (excluding potatoes)	Lowest quintile	Highest quintile
Fruit (excluding juices)	Lowest quintile	Highest quintile
Whole grain	Lowest quintile	Highest quintile
Nuts and legumes	Lowest quintile	Highest quintile
Low-fat dairy	Lowest quintile	Highest quintile
Red & processed meat	Highest quintile	Lowest quintile
Sodium	Highest quintile	Lowest quintile
SSB and fruit juices	Highest quintile	Lowest quintile
<b>TOTAL</b>	<b>5</b>	<b>40</b>

SSB, sugar sweetened beverages.

**Table S4. Healthy Eating Index (HEI)-2015 components and criteria for scoring\***

<b>Component</b>	<b>Daily intake for min point (0)</b>	<b>Daily intake for max point (5 or 10)</b>	<b>Max point</b>
Total vegetables	0	≥ 1.1 cup equivalent	5
Greens and beans	0	≥ 0.2 cup equivalent	5
Total fruit	0	≥ 0.8 cup equivalent	5
Whole fruit	0	≥ 0.4 cup equivalent	5
Whole grain	0	≥ 1.5 cup equivalent	10
Total dairy	0	≥ 1.3 cup equivalent	10
Total protein foods	0	≥ 2.5 oz equivalent	5
Seafood and plant proteins	0	≥ 0.8 oz equivalent	5
Fatty acid ratio	(PUFA + MUFA) / SFA ≤ 1.2	(PUFA + MUFA) / SFA ≥ 2.5	10
Sodium	≥ 2.0 g	≤ 1.1 g	10
Refined grains	≥ 4.3 oz equivalent	≤ 1.8 oz equivalent	10
Added sugar	≥ 26% of energy	≤ 6.5% of energy	10
Saturated fat	≥ 16% of energy	≤ 8% of energy	10
<b>TOTAL</b>	<b>0</b>		<b>100</b>

MUFA, monounsaturated fatty acids; PUFA, polyunsaturated fatty acids; SFA, saturated fatty acids.

\*All standards for food groups in HEI-2015 represent amounts per 1000 kcal.

**Table S5. Procedures for identification and adjudication of incident cases of peripheral arterial disease**

No.	Procedures	Details	N (%*)
1	Surgery, angioplasty, or thrombolysis	Surgery, angioplasty, or thrombolysis for PAD	842 (81.3%)
2	Ultrasonography or angiography	Obstruction or ulcerated plaque ( $\geq 50\%$ of the diameter or $\geq 75\%$ of the cross-sectional area) demonstrated on ultrasound or angiogram of the iliac arteries or below	713 (68.8%)
3	Exertional leg pain	Exertional leg pain relieved by rest in combination with: 1) claudication diagnosed by physician; and/or 2) ankle-arm systolic blood pressure ratio $\leq 0.80$	297 (28.7%)
4	No doppler pulse in vessels	Absence of pulse by doppler in any major vessel of lower extremities	108 (10.4%)
5	Amputation of one or more toes	Amputation of one or more toes or part of the lower extremity because of ischemia or gangrene	68 (6.6%)
6	Positive exercise test	Exercise test that is positive for lower extremity claudication	17 (1.6%)
By 1 or 2			976 (94.2%)
By 1 or 2 or 3			995 (96.0%)
By at least two procedures			709 (68.4%)

\*Percent cases among 1036 incident PAD cases included in the analysis.

**Table S6. Subgroup analyses for the association of diet quality indices with risk of peripheral arterial disease in the Women's Health Initiative\***

Subgroup	Cases/ participants	aMED		AHEI-2010		DASH		HEI-2015	
		HR (95% CI)	P-int	HR (95% CI)	P-int	HR (95% CI)	P-int	HR (95% CI)	P-int
Source of sample									
WHI-OS	569/91,058	0.90 (0.82-0.99)	0.96	0.88 (0.81-0.97)	0.88	0.87 (0.80-0.96)	0.96	0.92 (0.84-1.00)	0.64
WHI-CTs	467/47,448	0.91 (0.82-1.01)		0.86 (0.78-0.95)		0.85 (0.77-0.94)		0.85 (0.76-0.94)	
Age									
<65 y	374/76,811	0.84 (0.75-0.95)	<b>0.017</b>	0.82 (0.73-0.92)	<b>0.026</b>	0.85 (0.76-0.95)	0.15	0.85 (0.76-0.95)	0.10
≥65 y	662/61,695	0.93 (0.86-1.02)		0.90 (0.83-0.99)		0.87 (0.80-0.95)		0.90 (0.83-0.98)	
Race/ethnicity									
White	835/114,930	0.91 (0.84-0.98)	0.70	0.89 (0.83-0.96)	0.12	0.87 (0.79-0.93)	0.92	0.89 (0.83-0.96)	0.87
Black	154/11,913	0.87 (0.73-1.05)		0.76 (0.63-0.91)		0.88 (0.74-1.05)		0.86 (0.72-1.02)	
Hispanic/Latino	16/5449	0.77 (0.42-1.41)		0.76 (0.41-1.42)		0.83 (0.46-1.49)		0.93 (0.53-1.64)	
Smoking status									
Never	287/69,942	0.96 (0.84-1.09)	0.35	0.87 (0.77-0.99)	0.55	0.86 (0.75-0.98)	0.77	0.93 (0.82-1.06)	0.96
Former	486/57,333	0.90 (0.81-0.99)		0.87 (0.79-0.96)		0.85 (0.77-0.94)		0.84 (0.76-0.93)	
Current	244/9424	0.87 (0.76-1.01)		0.89 (0.77-1.03)		0.88 (0.76-1.02)		0.93 (0.81-1.06)	
Body mass index									
<25 kg/m <sup>2</sup>	339/50,284	0.88 (0.78-0.99)	0.44	0.86 (0.76-0.97)	0.72	0.82 (0.72-0.92)	0.18	0.89 (0.79-0.99)	0.35
25-<30 kg/m <sup>2</sup>	383/47,549	0.94 (0.84-1.05)		0.92 (0.82-1.03)		0.87 (0.78-0.98)		0.86 (0.77-0.96)	
≥30 kg/m <sup>2</sup>	306/39,373	0.91 (0.80-1.04)		0.84 (0.74-0.95)		0.90 (0.80-1.03)		0.92 (0.81-1.04)	
Recreational PA†									
<7.5 MET-h/wk	537/59,504	0.89 (0.81-0.98)	0.65	0.90 (0.82-0.99)	0.81	0.85 (0.77-0.94)	0.51	0.87 (0.79-0.95)	0.37
≥7.5 MET-h/wk	441/73,736	0.93 (0.84-1.03)		0.88 (0.79-0.97)		0.89 (0.80-0.99)		0.92 (0.83-1.02)	
Hypertension									
No	373/84,877	0.88 (0.78-0.98)	0.30	0.85 (0.76-0.95)	0.24	0.82 (0.73-0.91)	0.12	0.88 (0.78-0.98)	0.32
Yes	663/53,629	0.92 (0.85-1.01)		0.89 (0.82-0.97)		0.89 (0.82-0.97)		0.89 (0.82-0.97)	
Diabetes									
No	851/130,575	0.89 (0.83-0.96)	0.76	0.86 (0.79-0.92)	0.35	0.85 (0.79-0.92)	0.88	0.89 (0.82-0.95)	0.80
Yes	182/7825	0.97 (0.82-1.16)		0.96 (0.81-1.13)		0.91 (0.77-1.07)		0.88 (0.75-1.03)	
Dyslipidemia									
No	736/112,720	0.89 (0.82-0.97)	0.47	0.85 (0.79-0.92)	0.062	0.84 (0.77-0.91)	0.11	0.85 (0.78-0.92)	<b>0.035</b>
Yes	242/19,129	0.97 (0.84-1.13)		0.99 (0.86-1.15)		0.97 (0.84-1.12)		1.01 (0.88-1.16)	

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AHEI, alternate Healthy Eating Index; aMED, alternate Mediterranean diet; DASH, Dietary Approaches to Stop Hypertension; HEI, Healthy Eating Index; MET, metabolic equivalent; PA, physical activity; P-int, P value for interaction; wk, week; WHI-CTs, Women's Health Initiative Clinical Trials; WHI-OS, Women's Health Initiative Observational Study.

\*Results were for each SD increment of the dietary pattern scores, and were adjusted for all covariates (where appropriate) listed for model 2 of Table 2 (e.g., when stratifying by hypertension, results were further adjusted for blood pressure levels) in the article.

†Recreational physical activity of 7.5 MET-h/week approximates moderate-to-vigorous physical activity of 150 min/week (the lowest level recommended by the Physical Activity Guidelines for Americans).



**Table S7. Association of major food groups with risk of peripheral arterial disease in the Women’s Health Initiative\***

Food groups	Mean ± SD†	Quartile				P-trend
		Q1	Q2	Q3	Q4	
Fruit	1.46 ± 1.25 cup equivalents/d	1.00 (Referent)	0.98 (0.83-1.16)	0.79 (0.66-0.95)	0.91 (0.76-1.09)	0.19
Vegetables	1.60 ± 0.94 cup equivalents/d	1.00 (Referent)	0.90 (0.76-1.06)	0.79 (0.66-0.95)	0.85 (0.71-1.03)	0.090
Green vegetables	0.12 ± 0.17 cup equivalents/d	1.00 (Referent)	0.91 (0.76-1.08)	0.99 (0.84-1.18)	0.83 (0.69-1.00)	0.081
Whole grain	1.47 ± 1.11 oz equivalents/d	1.00 (Referent)	0.94 (0.80-1.11)	0.87 (0.73-1.03)	0.81 (0.68-0.97)	<b>0.014</b>
Refined grain	4.57 ± 1.65 oz equivalents/d	1.00 (Referent)	0.96 (0.81-1.13)	0.93 (0.78-1.11)	0.90 (0.75-1.07)	0.23
Nuts and seeds	0.42 ± 0.63 oz equivalents/d	1.00 (Referent)	0.90 (0.76-1.07)	0.83 (0.70-0.99)	0.93 (0.78-1.10)	0.82
Legumes	0.17 ± 0.32 cup equivalents/d	1.00 (Referent)	0.94 (0.81-1.11)	0.80 (0.68-0.85)	0.77 (0.64-0.93)	<b>0.004</b>
Unprocessed red meat	1.85 ± 1.33 oz equivalents/d	1.00 (Referent)	1.25 (1.04-1.51)	1.26 (1.04-1.52)	1.38 (1.14-1.66)	<b>0.003</b>
Processed meat	0.51 ± 0.56 oz equivalents/d	1.00 (Referent)	1.23 (1.01-1.49)	1.25 (1.03-1.50)	1.36 (1.13-1.64)	<b>0.004</b>
Fish	0.78 ± 0.74 oz equivalents/d	1.00 (Referent)	0.89 (0.74-1.04)	0.85 (0.71-1.01)	1.01 (0.85-1.20)	0.67
Dairy	2.01 ± 1.24 cup equivalents/d	1.00 (Referent)	0.92 (0.78-1.09)	0.82 (0.69-0.98)	0.93 (0.78-1.11)	0.38
Low-fat dairy	1.00 ± 0.93 cup equivalents/d	1.00 (Referent)	1.07 (0.90-1.26)	0.92 (0.77-1.10)	0.89 (0.74-1.07)	0.080
Regular soft drinks	0.19 ± 0.52 glasses/d	1.00 (Referent)	0.99 (0.81-1.21)	1.21 (1.00-1.45)	1.26 (1.05-1.52)	<b>0.011</b>
Fruit juices	0.86 ± 0.95 glasses/d	1.00 (Referent)	0.89 (0.75-1.06)	0.96 (0.81-1.14)	0.93 (0.79-1.11)	0.73
Alcohol	5.27 ± 10.7 g/d					
0 g/d		1.00 (Referent)				
>0-<5 g/d		1.05 (0.82-1.33)				
5-<15 g/d		1.06 (0.81-1.41)				
15-<25 g/d		1.16 (0.83-1.62)				
≥25 g/d		1.17 (0.83-1.65)				

\*All individual food groups (except for alcohol) were adjusted for total energy intake at 2000 kcal/d. Results were adjusted for all covariates (where appropriate) listed for model 2 of Table 2 in the article.

†The estimates for what counts as an ounce or cup equivalent of food groups are rounded to commonly used, consumer-friendly measures and, as such, could vary by foods. Definitions and determination of what counts as one equivalent of food groups can be found at:

[https://www.ars.usda.gov/ARUserFiles/80400530/pdf/mped/mped2\\_doc.pdf](https://www.ars.usda.gov/ARUserFiles/80400530/pdf/mped/mped2_doc.pdf)

**Table S8. Association of five food groups with risk of peripheral arterial disease after multivariable and mutual adjustment\***

Food groups	Quartile				P-trend
	Q1	Q2	Q3	Q4	
Whole grain					
Median (range), oz equivalents/d	0.38 (<0.69)	0.98 (0.69-1.27)	1.60 (1.28-2.03)	2.72 (>2.03)	
Model 2 (HR [95% CI]) + other 4 food groups	1.00 (Referent)	0.97 (0.82-1.15)	0.92 (0.77-1.09)	0.88 (0.74-1.06)	0.12
Legumes					
Median (range), cup equivalents/d	0.01 (<0.04)	0.06 (0.04-0.08)	0.13 (0.09-0.18)	0.31 (>0.18)	
Model 2 (HR [95% CI]) + other 4 food groups	1.00 (Referent)	0.93 (0.79-1.09)	0.79 (0.67-0.94)	0.80 (0.66-0.96)	0.012
Unprocessed red meat					
Median (range), oz equivalents/d	0.48 (<0.85)	1.19 (0.85-1.54)	1.95 (1.55-2.48)	3.30 (>2.48)	
Model 2 (HR [95% CI]) + other 4 food groups	1.00 (Referent)	1.21 (1.00-1.46)	1.20 (0.99-1.45)	1.30 (1.07-1.57)	0.018
Processed meat					
Median (range), oz equivalents/d	0.03 (<0.13)	0.22 (0.13-0.32)	0.46 (0.33-0.67)	1.07 (>0.67)	
Model 2 (HR [95% CI]) + other 4 food groups	1.00 (Referent)	1.18 (0.98-1.43)	1.17 (0.97-1.42)	1.27 (1.05-1.53)	0.026
Regular soft drinks					
Median (range), glasses/d	0 (0-0)	0.06 (0.01-0.09)	0.18 (0.10-0.41)	0.84 (>0.41)	
Model 2 (HR [95% CI]) + other 4 food groups	1.00 (Referent)	0.97 (0.80-1.19)	1.17 (0.97-1.41)	1.21 (1.00-1.45)	0.033

\*All food groups were adjusted for total energy intake at 2000 kcal/d. Covariates for model 2 are listed in the footnote to Table 2 in the article.

†The estimates for what counts as an ounce or cup equivalent of food groups are rounded to commonly used, consumer-friendly measures and, as such, could vary by foods. Definitions and determination of what counts as one equivalent of food groups can be found at:

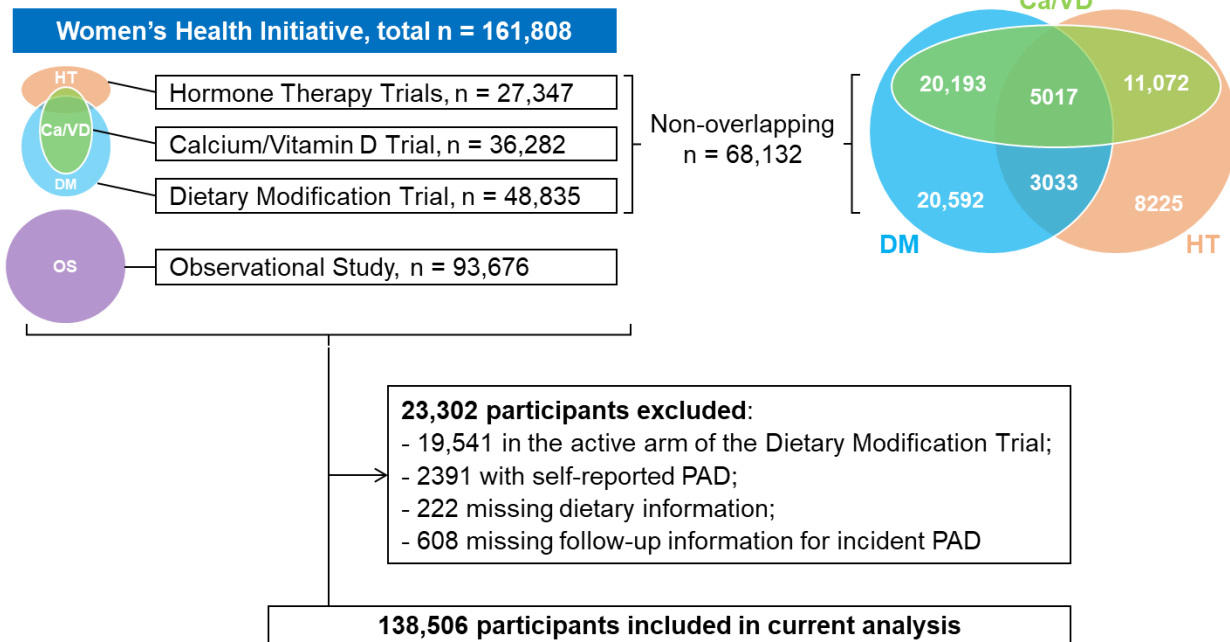
[https://www.ars.usda.gov/ARSUserFiles/80400530/pdf/mped/mped2\\_doc.pdf](https://www.ars.usda.gov/ARSUserFiles/80400530/pdf/mped/mped2_doc.pdf)

**Table S9. Association of nutrients or food components with risk of peripheral arterial disease in the Women's Health Initiative\***

Nutrients or food components	Mean ± SD	Quartile				P-trend
		Q1	Q2	Q3	Q4	
Dietary fiber	20.4 ± 7.2 g/d	1.00 (Referent)	0.85 (0.72-1.01)	0.84 (0.70-1.00)	0.78 (0.64-0.94)	<b>0.014</b>
SFA	24.1 ± 7.4 g/d	1.00 (Referent)	0.97 (0.80-1.17)	0.99 (0.82-1.19)	1.12 (0.92-1.35)	0.20
MUFA	27.5 ± 7.8 g/d	1.00 (Referent)	0.86 (0.71-1.04)	1.02 (0.84-1.23)	1.07 (0.88-1.29)	0.24
Ratio of MUFA/SFA	1.17 ± 0.24	1.00 (Referent)	0.89 (0.74-1.06)	0.88 (0.74-1.05)	0.92 (0.78-1.09)	0.42
Marine PUFA	161 ± 158 mg/d	1.00 (Referent)	0.97 (0.82-1.15)	0.94 (0.79-1.12)	0.95 (0.79-1.14)	0.58
Non-marine PUFA	15.0 ± 4.9 g/d	1.00 (Referent)	0.94 (0.78-1.13)	0.92 (0.76-1.10)	1.00 (0.83-1.19)	0.89
Ratio of (MUFA + PUFA)/SFA	1.83 ± 0.44	1.00 (Referent)	0.87 (0.73-1.04)	0.94 (0.79-1.12)	0.93 (0.78-1.10)	0.62
Trans fat	5.11 ± 2.53 g/d	1.00 (Referent)	0.99 (0.81-1.20)	1.21 (1.00-1.46)	1.09 (0.90-1.33)	0.29
Sodium	3.36 ± 0.59 g/d	1.00 (Referent)	1.14 (0.95-1.36)	1.09 (0.91-1.31)	1.08 (0.90-1.29)	0.55
Added sugar	57.8 ± 28.0 g/d	1.00 (Referent)	1.03 (0.87-1.23)	1.08 (0.90-1.29)	1.14 (0.96-1.36)	0.12
Animal protein	58.5 ± 17.3 g/d	1.00 (Referent)	1.12 (0.94-1.34)	1.19 (1.00-1.42)	1.11 (0.93-1.33)	0.22
Vegetable protein	25.2 ± 6.9 g/d	1.00 (Referent)	0.92 (0.78-1.09)	0.93 (0.78-1.10)	0.76 (0.62-0.91)	<b>0.006</b>

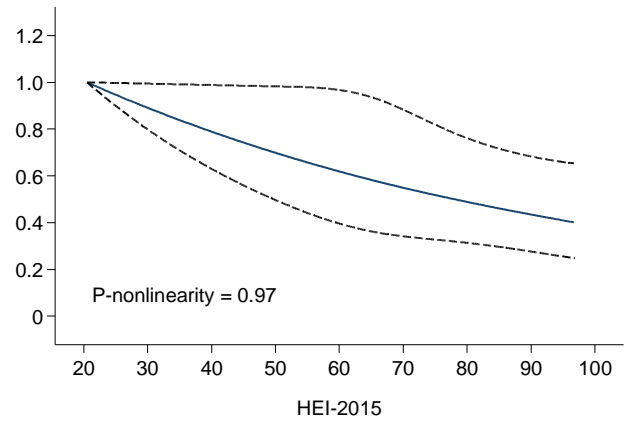
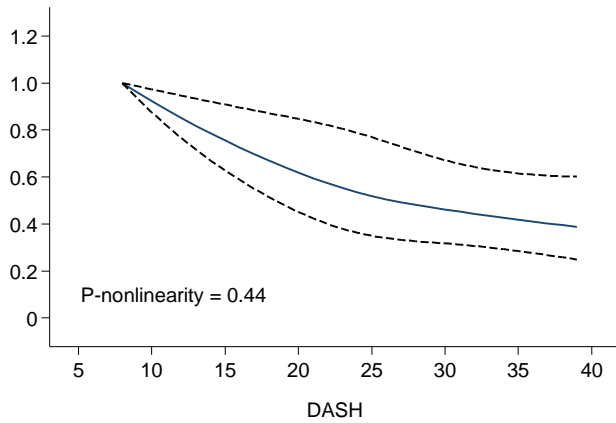
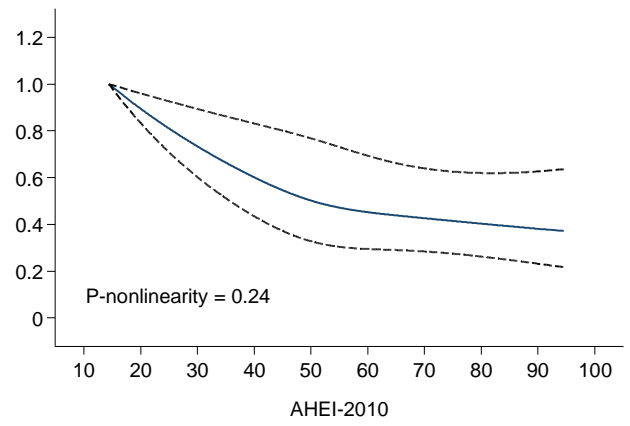
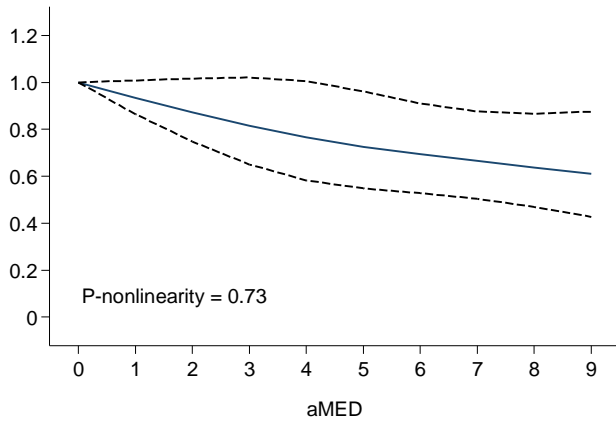
MUFA, monounsaturated fatty acids; PUFA, polyunsaturated fatty acids; Q, quartile; SFA, saturated fatty acids.

\*All individual nutrients or food components were adjusted for total energy intake at 2000 kcal/d; results were adjusted for all covariates (where appropriate) listed for model 2 of Table 2 in the article.



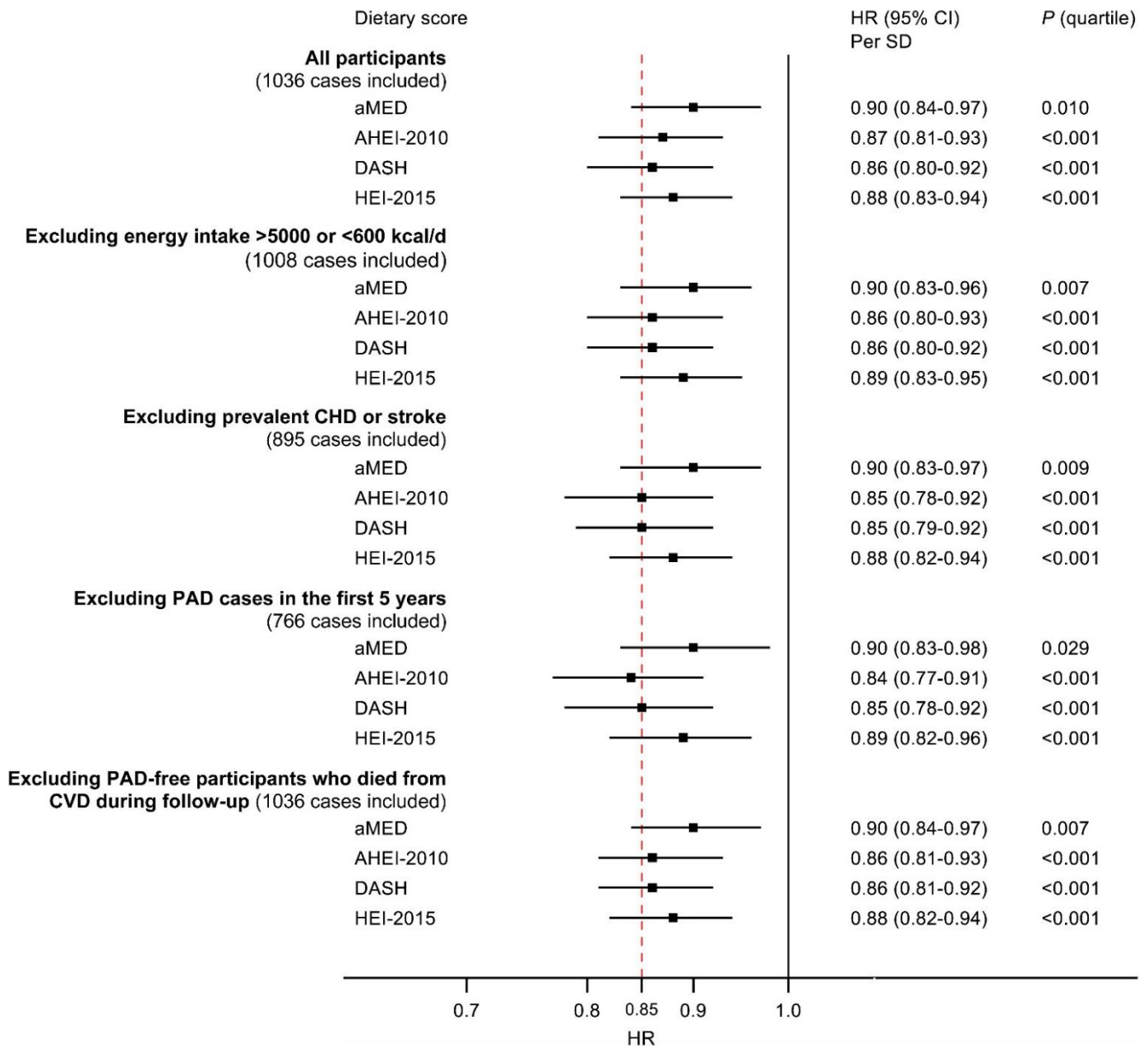
**Figure S1. An overview of the Women's Health Initiative Clinical Trials and Observational Study and selection of participant for current analysis.**

Ca/VD, Calcium/Vitamin D; DM, Dietary Modification; PAD, peripheral arterial disease; HT, Hormone Therapy.



**Figure S2. Restricted cubic splines showing linear inverse associations between diet quality scores and risk of peripheral arterial disease.**

Results were adjusted for all covariates listed for model 2 of Table 2 in the article. AHEI, alternate Healthy Eating Index; aMED, alternate Mediterranean diet; DASH, Dietary Approaches to Stop Hypertension; HEI, Healthy Eating Index.



**Figure S3. Sensitivity analyses for the association of diet quality indices with risk of peripheral arterial disease.** Results were for per SD increment of the diet quality scores and were adjusted for all covariates listed for model 2 of Table 2 in the article. P values are P for trend across quartile of the dietary scores. AHEI, alternate Healthy Eating Index; aMED, alternate Mediterranean diet; CHD, coronary heart disease; CVD, cardiovascular disease; DASH, Dietary Approaches to Stop Hypertension; HEI, Healthy Eating Index; PAD, peripheral arterial disease.