

Table 4 (online only): Multivariable ^a relative risks for cumulative updated diet quality scores for hip fractures stratified by BMI in the Nurses' Health Study (n=74,446, postmenopausal) and Health Professionals Follow-up Study (n=36,602, age 50+) participants ^b.

	Q1	Q2	Q3	Q4	Q5	P trend	P interaction
aMed ^c							
WOMEN							
BMI < 25.0	1	1.15 (0.96, 1.38)	0.94 (0.78, 1.13)	1.00 (0.82, 1.21)	0.98 (0.80, 1.21)	0.31	0.38
BMI ≥ 25.0	1	0.89 (0.71, 1.10)	1.04 (0.83, 1.29)	0.76 (0.60, 0.97)	0.91 (0.70, 1.18)	0.11	
MEN							
BMI < 25.0	1	1.26 (0.84, 1.89)	0.99 (0.65, 1.50)	0.97 (0.64, 1.48)	0.89 (0.58, 1.38)	0.28	0.03
BMI ≥ 25.0	1	0.89 (0.60, 1.33)	1.01 (0.69, 1.49)	0.83 (0.54, 1.27)	0.99 (0.63, 1.58)	0.85	
AHEI-2010 ^d							
WOMEN							
BMI < 25.0	1	1.08 (0.91, 1.27)	1.01 (0.85, 1.20)	0.95 (0.79, 1.13)	0.91 (0.76, 1.09)	0.08	0.39
BMI ≥ 25.0	1	0.93 (0.76, 1.14)	1.03 (0.84, 1.26)	0.91 (0.73, 1.12)	0.81 (0.64, 1.03)	0.11	
MEN							
BMI < 25.0	1	1.06 (0.71, 1.59)	1.05 (0.70, 1.57)	0.84 (0.55, 1.127)	1.01 (0.68, 1.50)	0.61	0.01

BMI >= 25.0	1	0.76 (0.51, 1.12)	0.85 (0.58, 1.26)	0.85 (0.57, 1.25)	0.65 (0.42, 1.11)	0.17
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DASH^e

WOMEN

BMI < 25.0	1	1.15 (0.95, 1.39)	1.10 (0.91, 1.34)	0.96 (0.79, 1.17)	0.93 (0.76, 1.14)	0.06	0.68
BMI >= 25.0	1	1.20 (0.96, 1.51)	1.06 (0.84, 1.35)	0.96 (0.76, 1.23)	0.95 (0.74, 1.24)	0.22	

MEN

BMI < 25.0	1	1.27 (0.84, 1.93)	1.07 (0.69, 1.65)	0.97 (0.63, 1.50)	0.84 (0.54, 1.29)	0.09	0.03
BMI >= 25.0	1	0.93 (0.62, 1.38)	0.89 (0.59, 1.35)	0.85 (0.56, 1.30)	1.23 (0.80, 1.89)	0.64	

^a adjusted for age, energy intake, BMI, height, smoking, leisure-time physical activity, post menopausal hormone use (women), thiazides, lasix, anti-inflammatory steroids, multivitamin supplements, supplemental intakes of calcium, retinol, and vitamin D, intake of caffeine, sugar sweetened beverages (aMed only), and alcohol (DASH only), history of diabetes.

^b NHS : BMI<25 → 1310 cases, BMI>=25 → 803 cases (except for AHEI due to 1984 start of follow-up: BMI<25 → 1453 cases; BMI>=25 → 893 cases)

HPFS: BMI<25 → 327 cases; BMI>=25 → 276 cases

^c Alternate Mediterranean Diet Score

^d Alternate Healthy Eating Index-2010

^e Dietary Approaches to Stop Hypertension Score

Table 5 (online only): Multivariable ^a relative risks for cumulative updated diet quality scores for hip fractures stratified by physical activity level in the Nurses' Health Study (n=74,446, postmenopausal) and Health Professionals Follow-up Study (n=36,602, age 50+) participants ^b.

	Q1	Q2	Q3	Q4	Q5	P trend	P interaction
aMed ^c							
WOMEN							
METs ^d ≤ median	1	1.00 (0.85, 1.19)	0.92 (0.77, 1.10)	0.78 (0.64, 0.96)	0.92 (0.74, 1.15)	0.05	0.83
METs > median	1	1.11 (0.87, 1.40)	1.05 (0.83, 1.33)	0.99 (0.78, 1.26)	0.95 (0.74, 1.22)	0.08	
MEN							
METs ≤ median	1	1.20 (0.86, 1.68)	1.08 (0.77, 1.52)	0.89 (0.62, 1.28)	0.91 (0.61, 1.34)	0.26	0.21
METs > median	1	0.72 (0.43, 1.21)	0.81 (0.49, 1.32)	0.79 (0.48, 1.30)	0.81 (0.49, 1.36)	0.79	
AHEI-2010 ^e							
WOMEN							
METs ≤ median	1	1.00 (0.85, 1.17)	0.94 (0.79, 1.10)	0.89 (0.75, 1.06)	0.83 (0.68, 1.01)	0.02	0.62
METs > median	1	0.95 (0.77, 1.18)	1.02 (0.83, 1.26)	0.90 (0.73, 1.11)	0.83 (0.67, 1.02)	0.03	
MEN							
METs ≤ median	1	0.79 (0.56, 1.11)	0.98 (0.70, 1.36)	0.78 (0.55, 1.11)	0.82 (0.58, 1.17)	0.24	0.15

METs > median	1	0.91 (0.56, 1.48)	0.73 (0.44, 1.20)	0.77 (0.48, 1.24)	0.75 (0.47, 1.20)	0.22	
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DASH^f

WOMEN

METs ≤ median	1	1.16 (0.97, 1.39)	1.03 (0.86, 1.24)	0.99 (0.81, 1.20)	0.88 (0.71, 1.10)	0.09	0.88
METs > median	1	1.11 (0.87, 1.43)	1.09 (0.85, 1.39)	0.88 (0.69, 1.13)	0.88 (0.69, 1.13)	0.01	

MEN

METs ≤ median	1	0.93 (0.66, 1.31)	0.96 (0.68, 1.36)	0.83 (0.64, 1.20)	0.86 (0.59, 1.24)	0.29	0.14
METs > median	1	1.11 (0.66, 1.88)	0.83 (0.48, 1.43)	0.82 (0.48, 1.38)	0.92 (0.54, 1.55)	0.31	

^a adjusted for age, energy intake, BMI, height, smoking, leisure-time physical activity, post menopausal hormone use (women), thiazides, lasix, anti-inflammatory steroids, multivitamin supplements, supplemental intakes of calcium, retinol, and vitamin D, intake of caffeine, sugar sweetened beverages (aMed only), and alcohol (DASH only), history of diabetes.

^b NHS : MET ≤ median → 1162 cases, METs > median → 981 cases (except for AHEI due to 1984 start of follow-up: MET ≤ median → 1289 cases; METs > median → 1096 cases) HPFS: MET ≤ median → 381 cases; METs > median → 222 cases

^c Alternate Mediterranean Diet Score

^d Metabolic equivalent hours/wk, median values for leisure-time physical activity are specific for each questionnaire cycle and range from 7.7-12.4 METs in women and from 10.6-30.5 in men.

^e Alternate Healthy Eating Index-2010

^f Dietary Approaches to Stop Hypertension Score

Table 6 (online only) Relative risks (95% CI) for quintiles of current diet scores for hip fractures in the Nurses' Health Study (n=74,446, postmenopausal) and Health Professionals Follow-up Study (n=36,602, age 50+) participants

	Q1	Q2	Q3	Q4	Q5	P trend
AHEI-2010^a						
<i>Women</i>						
No. of cases	554	500	496	452	428	
Age & energy adjusted	1	0.84 (0.74, 0.95)	0.83 (0.73, 0.94)	0.77 (0.68, 0.87)	0.73 (0.64, 0.83)	<0.001
Multivariable ^b adjusted	1	0.91 (0.80, 1.03)	0.92 (0.81, 1.04)	0.87 (0.76, 0.99)	0.82 (0.71, 0.93)	0.001
<i>Men</i>						
No. of cases	133	131	122	109	132	
Age & energy adjusted	1	0.88 (0.69, 1.13)	0.80 (0.62, 1.03)	0.72 (0.56, 0.93)	0.81 (0.63, 1.04)	0.01
Multivariable ^b adjusted	1	0.92 (0.71, 1.18)	0.84 (0.65, 1.09)	0.76 (0.59, 1.00)	0.85 (0.65, 1.10)	0.03
DASH^c						
<i>Women</i>						
No. of cases	543	488	584	435	505	

Age & energy adjusted	1	0.89 (0.79, 1.00)	0.85 (0.75, 0.95)	0.71 (0.63, 0.81)	0.71 (0.63, 0.81)	<0.001
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Multivariable ^b adjusted	1	0.96 (0.85, 1.09)	0.93 (0.82, 1.05)	0.80 (0.70, 0.92)	0.79 (0.69, 0.90)	0.001
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Men

No. of cases	116	118	133	113	147
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Age & energy adjusted	1	0.85 (0.65, 1.10)	0.89 (0.69, 1.15)	0.76 (0.59, 1.01)	0.82 (0.63, 1.05)	0.08
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Multivariable ^b adjusted	1	0.88 (0.67, 1.15)	0.92 (0.71, 1.20)	0.81 (0.61, 1.06)	0.83 (0.63, 1.08)	0.11
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aMed^d

Women

No. of cases	540	569	517	457	472
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Age & energy adjusted	1	0.91 (0.80, 1.03)	0.83 (0.73, 0.93)	0.80 (0.70, 0.91)	0.73 (0.64, 0.84)	<0.001
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Multivariable ^b adjusted	1	0.95 (0.84, 1.08)	0.90 (0.80, 1.02)	0.90 (0.79, 1.03)	0.83 (0.72, 0.96)	0.002
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Men

No. of cases	130	105	129	153	110
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Age & energy adjusted	1	0.82 (0.63, 1.07)	0.81 (0.63, 1.05)	0.88 (0.68, 1.13)	0.76 (0.58, 1.00)	0.07
Multivariable ^b adjusted	1	0.84 (0.64, 1.10)	0.85 (0.66, 1.11)	0.94 (0.73, 1.21)	0.82 (0.62, 1.09)	0.25

^a Alternative Healthy Eating Index-2010

^b adjusted for age, energy intake, BMI, height, smoking, leisure-time physical activity, post menopausal hormone use (women), thiazides, lasix, anti-inflammatory steroids, multivitamin supplements, supplemental intakes of calcium, retinol, and vitamin D, intake of caffeine, sugar sweetened beverages (Alternate Mediterranean Diet Score only), and alcohol (Dietary Approaches to Stop Hypertension Score only), history of diabetes.

^c Dietary Approaches to Stop Hypertension score

^d Alternate Mediterranean Diet score

Table 7 (online only): Multivariable relative risk (RR) (95% CI) of categories of cumulative diet scores for hip fractures in the Nurses' Health Study (n=74,446, postmenopausal) and Health Professionals Follow-up Study (n=36,602, age 50+) participants

	Score categories (points)					
AHEI-2010^a	≤40	41-48	49-56	57-64	65+	P trend
<i>Women</i>						
No. of cases	205	546	807	539	288	
Age & energy adjusted	1	0.94 (0.80, 1.10)	0.91 (0.78, 1.10)	0.76 (0.64, 0.89)	0.73 (0.61, 0.88)	<0.001
Multivariable ^b adjusted	1	1.01 (0.86, 1.19)	1.04 (0.89, 1.22)	0.90 (0.76, 1.06)	0.85 (0.70, 1.03)	0.02
<i>Men</i>						
No. of cases	49	96	184	148	126	
Age & energy adjusted	1	0.65 (0.46, 0.92)	0.76 (0.55, 1.06)	0.62 (0.45, 0.87)	0.68 (0.48, 0.95)	0.22
Multivariable ^b adjusted	1	0.68 (0.47, 0.97)	0.80 (0.57, 1.11)	0.67 (0.47, 0.94)	0.71 (0.50, 1.01)	0.34
DASH^c						
	≤20	21-23	24-26	27-29	30+	
<i>Women</i>						
No. of cases	336	566	609	448	184	
Age & energy adjusted	1	1.08 (0.94, 1.23)	0.92 (0.80, 1.05)	0.88 (0.75, 1.01)	0.75 (0.62, 0.90)	<0.001
Multivariable ^b adjusted	1	1.17 (1.02, 1.34)	1.06 (0.92, 1.22)	1.02 (0.88, 1.19)	0.87 (0.71, 1.05)	0.03
<i>Men</i>						
No. of cases	106	124	152	115	106	
Age & energy adjusted	1	0.93 (0.71, 1.22)	0.96 (0.74, 1.24)	0.87 (0.66, 1.15)	0.97 (0.73, 1.30)	0.52
Multivariable ^b adjusted	1	0.96 (0.73, 1.25)	0.98 (0.75, 1.28)	0.90 (0.68, 1.20)	0.96(0.70, 1.30)	0.50

aMed ^d	0-2	3	4	5	6	7-9	
<i>Women</i>							
No. of cases	259	445	549	452	314	124	
Age & energy adjusted	1	0.99 (0.84, 1.15)	0.92 (0.79, 1.07)	0.80 (0.68, 0.93)	0.84 (0.71, 1.00)	0.72 (0.57, 0.89)	<0.001
Multivariable ^b adjusted	1	1.03 (0.88, 1.20)	1.02 (0.88, 1.19)	0.92 (0.78, 1.08)	0.98 (0.82, 1.18)	0.85 (0.68, 1.07)	0.08
<i>Men</i>							
No. of cases	63	99	149	124	91	77	
Age & energy adjusted	1	1.00 (0.72, 1.38)	1.13 (0.84, 1.53)	0.88 (0.64, 1.21)	0.86 (0.61, 1.21)	1.06 (0.74, 1.50)	0.78
Multivariable ^b adjusted	1	1.04 (0.75, 1.43)	1.20 (0.88, 1.63)	0.94 (0.68, 1.30)	0.92 (0.65, 1.31)	1.12 (0.77, 1.63)	0.56

^a Alternate Healthy Eating Index score, higher score represents a healthier diet.

^b adjusted for age, energy intake, BMI, height, smoking, leisure-time physical activity, post menopausal hormone use (women), thiazides, lasix, anti-inflammatory steroids, multivitamin supplements, supplemental intakes of calcium, retinol, and vitamin D, intake of caffeine, sugar sweetened beverages (Alternate Mediterranean Diet Score only), and alcohol (Dietary Approaches to Stop Hypertension Score only), history of diabetes.

^c Dietary Approaches to Stop Hypertension score, higher score presents better adherence.

^d Alternate Mediterranean Diet score, higher score presents better adherence.