

Supplemental Material

Table S1. Adjusted mean \pm standard error of brachial-ankle pulse wave velocity change rate (cm/s per year) across night eating habits in women, men, and total participants.

	Never or rarely	Some days	Most days	p for trend
Women (n=2,222)				
Model 1	14.2 \pm 3.0	50.3 \pm 12.3	41.4 \pm 13.6	0.003
Model 2	13.0 \pm 3.2	51.8 \pm 12.8	42.8 \pm 14.0	0.002
Model 3	36.0 \pm 25.6	70.2 \pm 28.6	70.4 \pm 29.1	0.002
Model 4	31.2 \pm 30.8	63.6 \pm 32.4	66.3 \pm 33.4	0.002
Men (n=5,549)				
Model 1	9.9 \pm 2.1	13.4 \pm 6.6	14.2 \pm 6.8	0.47
Model 2	10.1 \pm 2.1	12.0 \pm 6.7	14.1 \pm 6.9	0.55
Model 3	-4.6 \pm 22.9	-4.8 \pm 23.7	2.2 \pm 24.0	0.43
Model 4	-12.6 \pm 26.2	-8.5 \pm 26.5	-6.3 \pm 27.0	0.36
Total (n=7,771)				
Model 1	6.6 \pm 1.9	17.6 \pm 5.9	16.5 \pm 6.2	0.04
Model 2	5.9 \pm 1.9	16.3 \pm 6.0	15.9 \pm 6.3	0.04
Model 3	20.3 \pm 16.2	29.2 \pm 17.1	34.6 \pm 17.3	0.02
Model 4	12.6 \pm 18.7	24.8 \pm 19.2	26.6 \pm 19.6	0.01

Model 1 adjusted for age and sex;

Model 2 further adjusted for baseline baPWV, total energy intake (quartiles) and Dietary Approaches to Stop Hypertension score;

Model 3 further adjusted for physical activity (low, moderate, or high), marriage (single or married), employment (blue-collar or white-collar worker), education level (high school and below, or college and above), alcohol consumption (yes or no), smoking status (yes or no), antihypertensive drug (yes/no), body mass index (quintile), systolic blood pressure (quintile), fasting blood glucose (quintile), low-density lipoprotein-cholesterol (quintile) and high-density lipoprotein-cholesterol (quintile);

Model 4 further adjusted for sleep duration (h), insomnia (yes or no), snoring (yes or no), and breakfast frequency.

*p-difference <0.05, compared to “never or rarely” ate at night group.

Table S2. Adjusted difference of brachial-ankle pulse wave velocity change rate (cm/s per year) according to night eating frequency in women, stratified by menopause status.

Menopause status	Never or rarely	Some days	Most days	p for trend	p for interaction
No (n=1,345)	n=1200 0 (reference)	n=88 11.6 (-37.2, 60.3)	n=57 37.8 (6.6, 69.0)*	0.02	0.92
Yes (n=438)	n=412 0 (reference)	n=11 34.3 (-137, 206)	n=15 85.1 (-61.4, 232)	0.19	

Model adjusted for age, baseline baPWV, total energy intake (quartiles), Dietary Approaches to Stop Hypertension (DASH) score, physical activity (low, moderate, or high), employment (blue-collar or white-collar worker), education level (high school and below, or college and above), alcohol consumption (yes or no), smoking status (yes or no), antihypertensive drug (yes/no), body mass index (quintile), systolic blood pressure (quintile), fasting blood glucose quintile, low-density lipoprotein-cholesterol (quintile), high-density lipoprotein-cholesterol (quintile), sleep duration (h), insomnia (yes or no), snoring (yes or no), and breakfast frequency;

*p-difference <0.05, compared to “never or rarely” ate at night group.

Table S3. Baseline characteristics comparison between women and men.

	Women n=2222	Men n=5549	P
Age, y	46.4 ± 9.8	45.4 ± 10.5	<0.001
College or above, %	32.7	10.4	<0.001
Manual labor, %	61.1	90.1	<0.001
Married, %	93.7	95.6	0.006
Current smoker, %	1.44	56.0	<0.001
Current drinker, %	15.9	46.9	<0.001
Physical exercises, %	19.6	16.3	<0.001
Antihypertensive drug, %	8.0	10.3	<0.001
Sleep duration, h	7.86 ± 1.40	7.87 ± 1.74	0.70
Insomnia, %	8.9	3.8	<0.001
Frequent snore, %	7.5	12.9	<0.001
Everyday breakfast, %	92.2	76.7	<0.001
Total energy intake, kcal/d	1564 ± 471	1720 ± 598	<0.001
DASH diet quality score	26.6 ± 4.2	25.9 ± 4.8	<0.001
baPWV, cm/s	1302 ± 267	1447 ± 259	<0.001
Body mass index, kg/m ²	24.0 ± 3.3	25.1 ± 3.2	<0.001
Systolic blood pressure, mmHg	122 ± 16	133 ± 16	<0.001
Fasting blood glucose, mmol/L	5.21 ± 0.59	5.34 ± 0.62	<0.001
Low-density lipoprotein- cholesterol, mmol/L	2.83 ± 0.76	2.99 ± 0.76	<0.001
High-density lipoprotein- cholesterol, mmol/L	1.44 ± 0.41	1.39 ± 0.45	<0.001

BaPWV, brachial-ankle pulse wave velocity; DASH, Dietary Approaches to Stop Hypertension.

Table S4. Baseline characteristics across night eating habits in women versus men.

	Women, n=2222			Men, n=5549		
	Never or rarely N=2007 (90.3%)	Some days N=119 (5.4%)	Most days N=96 (4.3%)	Never or rarely N=4618 (83.2%)	Some days N=491 (8.9%)	Most days N=440 (7.9%)
Age, y	46.7 ± 9.8	42.2 ± 8.2	45.8 ± 10.1	45.9 ± 10.8	42.5 ± 8.8	43.7 ± 9.1
College or above, %	32.0	52.6	30.0	10.9	9.1	5.8
Manual labor, %	61.1	52.6	69.7	89.7	89.7	94.9
Married, %	93.9	88.1	94.4	95.9	92.4	94.7
Current smoker, %	1.5	0.9	0.0	55.8	62.0	51.5
Current drinker, %	15.4	24.4	15.2	44.4	65.0	53.0
Physical exercises, %	19.2	21.1	26.9	26.6	25.1	25.3
Antihypertensive drug, %	8.4	4.3	5.3	10.9	7.2	7.9
Sleep duration, h	7.86 ± 1.37	7.89 ± 1.51	7.84 ± 1.82	7.86 ± 1.72	7.81 ± 1.72	8.10 ± 1.93
Insomnia, %	8.6	12.7	10.9	2.9	10.7	5.1
Frequent snore, %	7.5	9.4	5.8	12.7	16.2	12.2
Everyday breakfast, %	93.2	74.8	92.6	78.3	58.3	80.7
Total energy intake, kcal/d	1564 ± 473	1608 ± 491	1511 ± 412	1716 ± 593	1754 ± 651	1724 ± 580
DASH diet quality score	26.6 ± 4.2	26.6 ± 4.1	26.4 ± 4.8	25.8 ± 4.9	26.0 ± 4.6	26.0 ± 4.6
baPWV, cm/s	1304 ± 267	1256 ± 214	1312 ± 309	1453 ± 266	1416 ± 237	1420 ± 210
Body mass index, kg/m ²	24.1 ± 3.3	23.8 ± 3.2	23.4 ± 3.4	25.2 ± 3.2	25.2 ± 3.3	24.7 ± 3.0
Systolic blood pressure, mmHg	122 ± 16	118 ± 13	118 ± 17	134 ± 16	132 ± 15	131 ± 14.4
Fasting blood glucose, mmol/L	5.22 ± 0.59	5.14 ± 0.61	5.18 ± 0.62	5.35 ± 0.62	5.28 ± 0.63	5.32 ± 0.61
Low-density lipoprotein- cholesterol, mmol/L	2.84 ± 0.77	2.63 ± 0.70	2.88 ± 0.71	3.01 ± 0.76	2.92 ± 0.76	2.86 ± 0.73
High-density lipoprotein- cholesterol, mmol/L	1.43 ± 0.33	1.50 ± 1.12	1.45 ± 0.31	1.40 ± 0.46	1.37 ± 0.36	1.38 ± 0.35

BaPWV, brachial-ankle pulse wave velocity; DASH, Dietary Approaches to Stop Hypertension.