Web Table 1. Stratified by BMI (BMI<25, BMI 25-29, BMI≥30) the association of cumulative average intake of total coffee, regular coffee, and decaffeinated coffee with erectile dysfunction (ED) in the Health Professionals Follow-Up Study, 1998-2010

Type of coffee and BMI categories	Coffee Intake, cups/day										P for trend	P for interaction
	No coffee[a]		<0.5		0.5-0.99		1-3.99		≥4			
	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI		
Total coffee												0.07
BMI <25												
Model 1[b]	1.00	Referent	0.88	0.76, 1.02	0.88	0.75, 1.02	0.93	0.82, 1.04	0.93	0.78, 1.11	0.63	
BMI 25-29												
Model 1	1.00	Referent	0.92	0.74, 1.09	0.92	0.80, 1.17	0.98	0.86, 1.17	0.97	0.85, 1.22	0.74	
BMI ≥ 30												
Model 1	1.00	Referent	1.40	0.27, 1.93	1.15	0.26, 2.02	1.30	0.72, 2.95	1.36	0.59, 2.56	0.08	
Regular coffee												0.16
BMI <25												
Model 1	1.00	Referent	0.98	0.87, 1.10	0.96	0.84, 1.10	0.98	0.88, 1.09	0.88	0.70, 1.10	0.52	
BMI 25-29												
Model 1	1.00	Referent	1.05	0.94, 1.19	1.04	0.91, 1.18	1.05	0.94, 1.16	1.03	0.87, 1.22	0.60	
BMI ≥ 30												
Model 1	1.00	Referent	1.24	0.98, 1.57	1.33	1.04, 1.71	1.15	0.94, 1.40	1.20	0.88, 1.63	0.51	
Decaffeinated coffee												0.88
BMI <25												

Model 1	1.00	Referent	0.93	0.85, 1.03	0.96	0.85, 1.08	1.08	0.97, 1.20	0.99	0.60, 1.63	0.17
BMI 25-29										
Model 1	1.00	Referent	1.01	0.92, 1.10	1.00	0.89, 1.11	1.01	0.91, 1.11	1.61	1.19, 2.19	0.45
BMI ≥ 30										
Model 1	1.00	Referent	1.13	0.96, 1.32	1.12	0.91, 1.38	1.05	0.87, 1.27	1.49	0.84, 2.65	0.45

Abbreviations: CI, confidence interval; HR, hazard ratio; BMI, body mass index

[a] Included men who drink no regular or decaffeinated coffee.

[b] Models were adjusted for age in months, calendar time, smoking (never, past, or current 1–14, 15–24, ≥25 cigarettes/d), alcohol (gm/d, 0; 0.1-4.9; 5-14.9;15-29.9;30+), total activity metabolic equivalent/week(quintiles)ls, history of diabetes (yes/no), history of hypertension (yes/no), history of hypercholesterolemia (yes/no), history of cardiovascular disease (yes/no), energy intake (kcal/d, quintiles), AHEI score(quintiles), marital status (married, divorced, separated, widowed, or never married), race (White, African-American, Asian American, Other), difficulty of falling into sleep(yes/no), wake up during night(yes/no), not feel rested when wake up (yes/no), medication for lowering cholesterol, lowering blood pressure and sleep medicine (yes/no).

[b] Reference group is men who drink no regular or decaffeinated coffee.

Web Table 2. Stratified by hypertension history (yes/no) the association of cumulative average intake of total coffee, regular coffee, and decaffeinated coffee with erectile dysfunction (ED) in the Health Professionals Follow-Up Study, 1998-2010

Type of coffee and Hypertension status	Coffee Intake, cups/day										P for trend	P for interaction
	No coffee[a]		<0.5		0.5-0.99		1-3.99		≥4			
	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI		
Total coffee												0.25
Hypertension (No)												
Model 1[b]	1.00	Referent	0.93	0.83, 1.04	0.93	0.83, 1.04	0.97	0.89, 1.06	0.97	0.87, 1.09	0.92	
Hypertension (Yes)												
Model 1	1.00	Referent	1.03	0.80, 1.33	0.95	0.74, 1.22	1.08	0.88, 1.32	1.07	0.81, 1.42	0.33	
Regular coffee												0.25
Hypertension (No)												
Model 1	1.00	Referent	1.01	0.93, 1.10	0.97	0.88, 1.07	1.00	0.93, 1.08	1.00	0.87, 1.13	0.93	
Hypertension (Yes)												
Model 1	1.00	Referent	1.19	0.94, 1.19	1.32	0.91, 1.18	1.15	0.94, 1.16	0.97	0.69, 1.37	0.42	
Decaffeinated coffee												0.72
Hypertension (No)												
Model 1	1.00	Referent	0.99	0.93, 1.06	1.01	0.93, 1.09	1.02	0.95, 1.10	1.31	1.01, 1.70	0.28	
Hypertension (Yes)												

Model 1	1.00	Referent	0.97	0.84, 1.13	0.97	0.81, 1.15	1.05	0.90, 1.23	1.43	0.83, 2.44	0.38	

Abbreviations: CI, confidence interval; HR, hazard ratio; BMI, body mass index

[a] Included men who drink no regular or decaffeinated coffee.

[b] Models which were adjusted for age in months, calendar time, smoking (never, past, or current 1–14, 15–24, ≥25 cigarettes/d), BMI (kg/m^2, <25;25-29.9;30+), alcohol (gm/d, 0; 0.1-4.9; 5-14.9;15-29.9;30+), total activity metabolic equivalent/week (quintiles), history of diabetes (yes/no), history of hypercholesterolemia (yes/no), history of cardiovascular disease (yes/no), energy intake (kcal/d, quintiles), AHEI score(quintiles), marital status (married, divorced, separated, widowed, or never married), race (White, African-American, Asian American, Other), difficulty of falling into sleep(yes/no), wake up during night(yes/no), not feel rested when wake up (yes/no), medication for lowering cholesterol, lowering blood pressure and sleep medicine (yes/no).

Web Table 3. Stratified by currently married (yes/no) the association of cumulative average intake of total coffee, regular coffee, and decaffeinated coffee with erectile dysfunction (ED) in the Health Professionals Follow-Up Study, 1998-2010

Type of coffee and Marital status	Coffee Intake, cups/day										P for trend	P for interaction
	No coffee[a]		<0.5		0.5-0.99		1-3.99		≥4			
	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI		
Total coffee												0.32
Not Currently married												
Model 1[b]	1.00	Referent	1.03	0.73, 1.45	0.86	0.60, 1.23	1.07	0.81, 1.43	1.21	0.83, 1.77	0.28	
Currently married												
Model 1	1.00	Referent	0.93	0.83, 1.03	0.92	0.83, 1.02	0.97	0.89, 1.06	0.97	0.87, 1.08	0.94	
Regular coffee												0.67
Not Currently married												
Model 1	1.00	Referent	1.11	0.84, 1.46	1.14	0.85, 1.54	1.10	0.86, 1.41	1.15	0.76, 1.74	0.53	
Currently married												
Model 1	1.00	Referent	1.03	0.95, 1.12	1.01	0.92, 1.10	1.02	0.94, 1.09	0.99	0.87, 1.12	0.94	
Decaffeinated coffee												0.08
Not Currently married												
Model 1	1.00	Referent	0.99	0.82, 1.19	0.98	0.77, 1.25	1.20	0.96, 1.51	2.57	1.00, 6.59	0.10	
Currently married												

| Model 1 | 1.00 | Referent | 0.98 | 0.92, 1.05 | 1.00 | 0.92, 1.08 | 1.01 | 0.94, 1.09 | 1.29 | 1.01, 1.65 | 0.35 | |

Abbreviations: CI, confidence interval; HR, hazard ratio

[a] Included men who drink no regular or decaffeinated coffee.

[b]Models were adjusted for age in months, calendar time, smoking (never, past, or current 1–14, 15–24, ≥25 cigarettes/d), BMI (kg/m^2, <25;25-29.9;30+), alcohol (gm/d, 0; 0.1-4.9; 5-14.9;15-29.9;30+), total activity metabolic equivalent/week (quintiles), history of diabetes (yes/no), history of hypertension (yes/no), history of hypercholesterolemia (yes/no), history of cardiovascular disease (yes/no), energy intake (kcal/d, quintiles), AHEI score (quintiles), race (White, African-American, Asian American, Other), difficulty of falling into sleep(yes/no), wake up during night(yes/no), not feel rested when wake up (yes/no),medication for lowering cholesterol, lowering blood pressure and sleep medicine (yes/no).

[b]Reference group is men who drink no regular or decaffeinated coffee.

Web Table 4. Stratified by Alcohol: the association of cumulative average intake of total coffee, regular coffee, and decaffeinated coffee with erectile dysfunction (ED) in the Health Professionals Follow-Up Study, 1998-2010

Type of coffee and Alcohol intake	Coffee Intake, cups/day										P for trend	P for interaction
	No coffee[a]		<0.5		0.5-0.99		1-3.99		≥4			
	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI		
Total coffee												0.70
Alcohol 0 g/day												
Model 1[b]	1.00	Referent	1.02	0.87, 1.20	0.98	0.82, 1.18	0.95	0.83, 1.08	1.09	0.88, 1.34	0.73	
Alcohol 0.1-14.9 g/day												
Model 1	1.00	Referent	0.96	0.82, 1.12	0.92	0.79, 1.07	1.04	0.92, 1.18	0.99	0.84, 1.16	0.28	
Alcohol >=15 g/day												
Model 1	1.00	Referent	0.76	0.59-0.97	0.82	0.64-1.04	0.85	0.70, 1.05	0.85	0.67, 1.07	0.93	
Regular coffee												0.93
Alcohol 0 g/day												
Model 1	1.00	Referent	0.96	0.83, 1.11	1.11	0.94, 1.32	0.94	0.82, 1.06	1.07	0.82, 1.39	0.67	
Alcohol 0.1-14.9 g/day												
Model 1	1.00	Referent	1.14	1.01, 1.28	1.13	1.00, 1.29	1.11	1.00, 1.23	1.05	0.87, 1.27	0.32	
Alcohol >=15 g/day												
Model 1	1.00	Referent	0.98	0.83, 1.17	0.86	0.71, 1.03	0.97	0.83, 1.13	0.90	0.72, 1.12	0.61	

Decaffeinated coffee												0.93
Alcohol 0 g/day												
Model 1	1.00	Referent	1.03	0.92, 1.17	0.97	0.82, 1.14	1.02	0.88, 1.19	1.50	0.92, 2.47	0.69	
Alcohol 0.1-14.9 g/day												
Model 1	1.00	Referent	0.96	0.87, 1.04	0.98	0.88, 1.10	1.06	0.97, 1.17	1.21	0.83, 1.76	0.14	
Alcohol >=15 g/day												
Model 1	1.00	Referent	1.02	0.91, 1.15	1.07	0.98, 1.23	1.02	0.90, 1.15	1.39	0.95, 2.05	0.43	

Abbreviations: CI, confidence interval; HR, hazard ratio; BMI, body mass index
[a] Included men who drink no regular or decaffeinated coffee.
[b] Models which were adjusted for age in months, calendar time, smoking (never, past, or current 1–14, 15–24, ≥25 cigarettes/d), BMI (kg/m^2, <25;25-29.9;30+), total activity metabolic equivalent/week (quintiles), history of diabetes (yes/no), history of hypertension (yes/no), history of hypercholesterolemia (yes/no), history of cardiovascular disease (yes/no), energy intake (kcal/d, quintiles), AHEI score (quintiles), marital status (married, divorced, separated, widowed, or never married), race (White, African-American, Asian American, Other), difficulty of falling into sleep(yes/no), wake up during night(yes/no), not feel rested when wake up (yes/no), medication for lowering cholesterol, lowering blood pressure and sleep medicine (yes/no).