Table S1 Relationship between high-frequency aspirin use and lung cancer incidence among participants with different smoked status

Smoked status	N	Lung cancer event	Crude incidence (%)	HR
Never smoked cigarettes	48,553	115	0.24	1.15 (0.74–1.78), P=0.54
Former cigarette smoker	43,761	723	1.65	1.14 (0.96–1.35), P=0.11
<15 years	15,116	452	2.99	1.05 (0.85–1.29), P=0.67
≥15 years	27,819	261	0.94	1.18 (0.89–1.56), P=0.26
Current cigarette smoker	9,395	590	6.28	1.30 (1.07–1.57), P=6.82×10^{-3}

Cox regression model adjusted for propensity score calculated using age, pack-years of smoking, gender, race, screening arm, body mass index, diabetes, and intake of alcohol, total energy, vitamin C, vitamin E, folate, calcium, red meat, processed meat, lycopene, alpha-carotene, fruit, vegetables, and fat. High-frequency use: ≥1 pill per day. HR, hazard ratio.

Table S2 Relationship between aspirin use and lung cancer incidence among participants with cardiac-cerebral vascular disease

Aspirin frequency	N	Lung cancer event	Crude incidence (%)	HR$_{Model 1}$[*]	HR$_{Model 2}$[†]	HR$_{Model 3}$[‡]
Linear trend	9,731	197	2.02	1.06 (0.94–1.19), P=0.33405	1.05 (0.93–1.18), P=0.45577	1.04 (0.92–1.17), P=0.52911
No use	2,080	39	1.87	Ref	Ref	Ref
Irregular-frequency	310	4	1.29	0.73 (0.26–2.06), P=0.55698	0.73 (0.26–2.05), P=0.55529	0.71 (0.25–1.99), P=0.51526
Low-frequency	742	12	1.61	0.82 (0.43–1.56), P=0.53584	0.81 (0.43–1.55), P=0.53059	0.81 (0.42–1.55), P=0.5229
High-frequency	6,599	142	2.15	1.15 (0.81–1.64), P=0.44301	1.11 (0.78–1.58), P=0.57874	1.08 (0.76–1.54), P=0.66508

[*], Model 1: Cox regression model adjusted for age; [†], Model 2: Cox regression model adjusted for propensity score calculated using age, pack-years of smoking, gender, race, screening arm, body mass index, diabetes; [‡], Model 3: Cox regression model adjusted for propensity score calculated using age, pack-years of smoking, gender, race, screening arm, body mass index, diabetes, and intake of alcohol, total energy, vitamin C, vitamin E, folate, calcium, red meat, processed meat, lycopene, alpha-carotene, fruit, vegetables, and fat. Irregular-frequency use: 1 pill per week; Low-frequency use: 1–4 pills per week; High-frequency use: ≥1 pill per day. HR, hazard ratio.

Table S3 Association between aspirin use and lung cancer incidence according to bodyweight

Aspirin frequency	Bodyweight (kg)	N	Lung cancer event	Crude incidence (%)	HR	CI	CU	P
High-frequency	<70	6,370	119	1.87	1.48	1.18	1.86	6.70E-04
	70–79	6,450	114	1.77	1.39	1.1	1.76	5.91E-03
	80–89	5,886	87	1.47	1.06	0.81	1.39	6.69E-01
	≥90	7,530	126	1.67	1.27	1	1.61	4.98E-02
Low-frequency	<70	4,071	61	1.50	1.23	0.93	1.64	1.49E-01
	70–79	3,459	45	1.30	1.04	0.75	1.44	8.09E-01
	80–89	2,820	29	1.03	0.74	0.5	1.11	1.45E-01
	≥90	2,940	30	1.03	0.76	0.51	1.13	1.71E-01
Irregular-frequency	<70	2,954	47	1.59	1.21	0.88	1.67	2.36E-01
	70–79	2,417	34	1.41	1.1	0.77	1.56	5.97E-01
	80–89	2,020	30	1.49	1.1	0.74	1.64	6.27E-01
	≥90	2,339	28	1.20	0.92	0.61	1.38	6.85E-01

Cox regression model adjusted for propensity score calculated using age, pack-years of smoking, gender, race, screening arm, body mass index, diabetes, heart disease and stroke history, and intake of alcohol, total energy, vitamin C, vitamin E, folate, calcium, red meat, processed meat, lycopene, alpha-carotene, fruit, vegetables, and fat. Irregular-frequency use: 1 pill per week; Low-frequency use: 1–4 pills per week; High-frequency use: ≥1 pill per day. HR, hazard ratio; CI, lower confidence interval; CU, upper confidence interval.

Table S4 Association between aspirin use and lung cancer incidence according to bodyweight among participants without cardiac-cerebral vascular disease

Aspirin frequency	Bodyweight (kg)	N	Lung cancer event	Crude incidence (%)	HR	CI	CU	P
High-frequency	<70	3,640	60	1.65	1.41	1.1	1.81	6.28E-03
	70–79	2,987	50	1.67	1.25	0.95	1.64	1.05E-01
	80–89	2,465	29	1.18	0.98	0.71	1.35	8.82E-01
	≥90	2,560	39	1.52	1.21	0.92	1.59	1.73E-01
Low-frequency	<70	3,004	43	1.43	1.26	0.94	1.69	1.19E-01
	70–79	2,336	24	1.03	1.08	0.77	1.5	6.63E-01
	80–89	1,777	21	1.18	0.7	0.45	1.09	1.12E-01
	≥90	1,620	18	1.11	0.77	0.51	1.16	2.18E-01
Irregular-frequency	<70	2,296	40	1.74	1.27	0.92	1.75	1.42E-01
	70–79	1,775	29	1.63	1.08	0.75	1.55	6.89E-01
	80–89	1,385	21	1.52	1.18	0.79	1.77	4.24E-01
	≥90	1,419	18	1.27	0.94	0.62	1.43	7.85E-01

Cox regression model adjusted for propensity score calculated using age, pack-years of smoking, gender, race, screening arm, body mass index, diabetes, and intake of alcohol, total energy, vitamin C, vitamin E, folate, calcium, red meat, processed meat, lycopene, alpha-carotene, fruit, vegetables, and fat. Irregular-frequency use: 1 pill per week; Low-frequency use: 1–4 pills per week; High-frequency use: ≥1 pill per day. HR, hazard ratio; CI, lower confidence interval; CU, upper confidence interval.

Table S5 Association between aspirin use and lung cancer incidence according to bodyweight among participants with cardiac-cerebral vascular disease

Aspirin frequency	Bodyweight (kg)	N	Lung cancer event	Crude incidence (%)	HR	CI	CU	P
High-frequency	<70	2,689	57	2.12	1.33	0.6	2.95	4.88E-01
	70–79	3,431	63	1.84	1.31	0.65	2.65	4.50E-01
	80–89	3,400	58	1.71	0.77	0.39	1.52	4.50E-01
	≥90	4,942	87	1.76	1.22	0.62	2.43	5.66E-01
Low-frequency	<70	1,048	18	1.72	0.74	0.16	3.51	7.08E-01
	70–79	1,100	20	1.82	0.55	0.12	2.53	4.43E-01
	80–89	1,025	8	0.78	1.09	0.39	3.02	8.75E-01
	≥90	1,298	12	0.92	0.6	0.13	2.77	5.17E-01
Irregular-frequency	<70	636	1	0.16	/	/	/	/
	70–79	628	5	0.80	3.29	0.87	12.46	7.94E-02
	80–89	621	9	1.45	0.52	0.07	4.05	5.34E-01
	≥90	900	1	0.11	/	/	/	/

Cox regression model adjusted for propensity score calculated using age, pack-years of smoking, gender, race, screening arm, body mass index, diabetes, and intake of alcohol, total energy, vitamin C, vitamin E, folate, calcium, red meat, processed meat, lycopene, alpha-carotene, fruit, vegetables, and fat. Irregular-frequency use: 1 pill per week; Low-frequency use: 1–4 pills per week; High-frequency use: ≥1 pill per day. HR, hazard ratio; CI, lower confidence interval; CU, upper confidence interval.
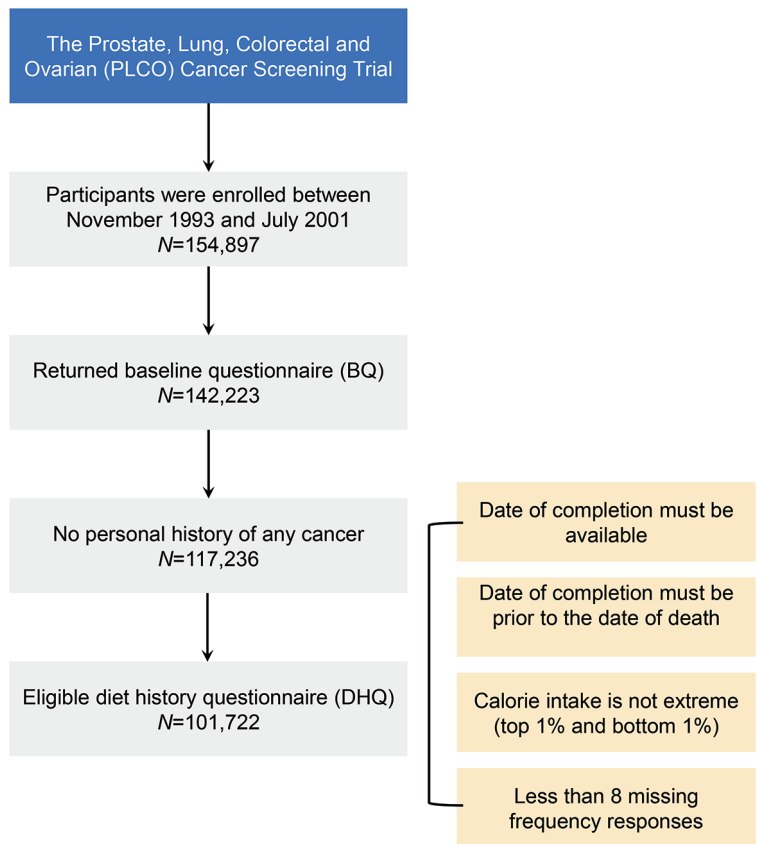
Figure S1 Flowchart for the participants selection.
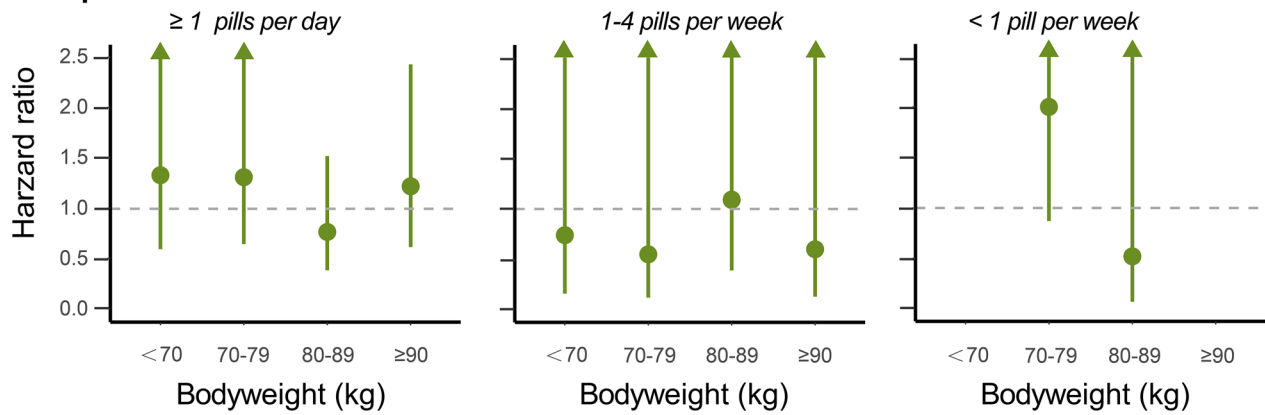
Figure S2 Association between aspirin use and risk of lung cancer according to bodyweight. Size of circles representing point estimates of hazard ratios is proportional to inverse of variance of the estimate.