Supplemental Material

Table S1. International Classification of Disease codes used to determine validated cases of atherosclerotic cardiovascular disease

Validated Diagnosis	ICD codes (ICD-8; ICD-10)	Follow-up
Myocardial infarction	I21	10-02-1994 to 04-07-2013
Peripheral artery disease	I702, I702A, I739A, I739B, I739C	14-11-1994 to 07-12-2009
Ischemic stroke	I63	04-03-1994 to 30-11-2009

The methods for validating these cases have been published previously[35–39] .

Table S2. Anatomical Therapeutic Chemical codes for antihypertensive medications

Use of antihypertensive medication was defined by the usage of any combination of at least two of the seven different drugs classes at the same time.	Non-Loop: Thiazides C02L, C02DA, C07B, C07D, C09XA52, C03A, C03EA; Low-ceiling diuretics (excl. thiazides): C03B, C03X, C07C, C08G, C09BA, C09DA; potassium-sparing agents (spiron): C03D, C03E, C03EB Loop: high-ceiling diuretics (Loop) C03C, C03EB Antiadrenergic agents: C02A, C02B, C02C Beta-blockers: C07A, C07B, C07C, C07D, C07F Vasodilators: C02DB, C02DD, C02DG Calcium channel blockers: C08, C09BB, C09DB Renin angiotensin system inhibitors and angiotensin II receptor blockers: C09AA, C09BA, C09BB, C09CA, C09DA, C09DB, C09XA02, C09XA52

Table S3. Intakes and main dietary sources of vitamin K_1 and vitamin K_2 in the Danish Diet Cancer and Health cohort

Vitamin K	Median [IQR] intake (µg/day)	Main dietary sources
Vitamin K_1	113.8 [80.7 – 151.2]	Margarine (12.5%), lettuce (12.0%), broccoli (6.8%), wholemeal bread (6.9%), spinach (5.5%)
Vitamin K_2	43.7 [31.1 – 61.5]	
MK-4	19.0 [13.4 – 25.4]	Eggs (15%), butter (9.4%), cheese (6.8%)
MK-5	0.4 [0.3 – 0.5]	Hard cheese (69.8%)
MK-6	0.6 [0.4 – 0.8]	Hard cheese (33.7%)
MK-7	0.6 [0.4 – 0.9]	Hard cheese (44.6%)
MK-8	5.3 [3.8 – 9.7]	Hard cheese (59.1%), brie cheese (6.6%)
MK-9	13.2 [9.0 – 26.9]	Hard cheese (71.2%), brie cheese (9.4%), blue cheese (6.2%)
MK-10	0.7 [0.4 – 1.7]	Hard cheese (85.4%)

Table S4. Association between incident atherosclerotic cardiovascular disease and vitamin K_1 intake, stratified by tertiles of total vegetable intake

		Vitamin K_1 intake quintiles				
Baseline vegetable intake tertile		**Q1**	**Q2**	**Q3**	**Q4**	**Q5**
1	No. events	1 916	1 063	412	106	24
	HR (95% CI)	ref.	0.97 (0.90, 1.06)	0.93 (0.85, 1.02)	0.85 (0.74, 0.98)	0.74 (0.55, 0.99)
2	No. events	201	693	922	687	216
	HR (95% CI)	ref.	0.84 (0.73, 0.96)	0.79 (0.67, 0.92)	0.76 (0.65, 0.88)	0.61 (0.50, 0.75)
3	No. events	25	107	355	733	1 266
	HR (95% CI)	ref.	0.88 (0.79, 0.97)	0.78 (0.64, 0.95)	0.72 (0.55, 0.93)	0.73 (0.58, 0.93)

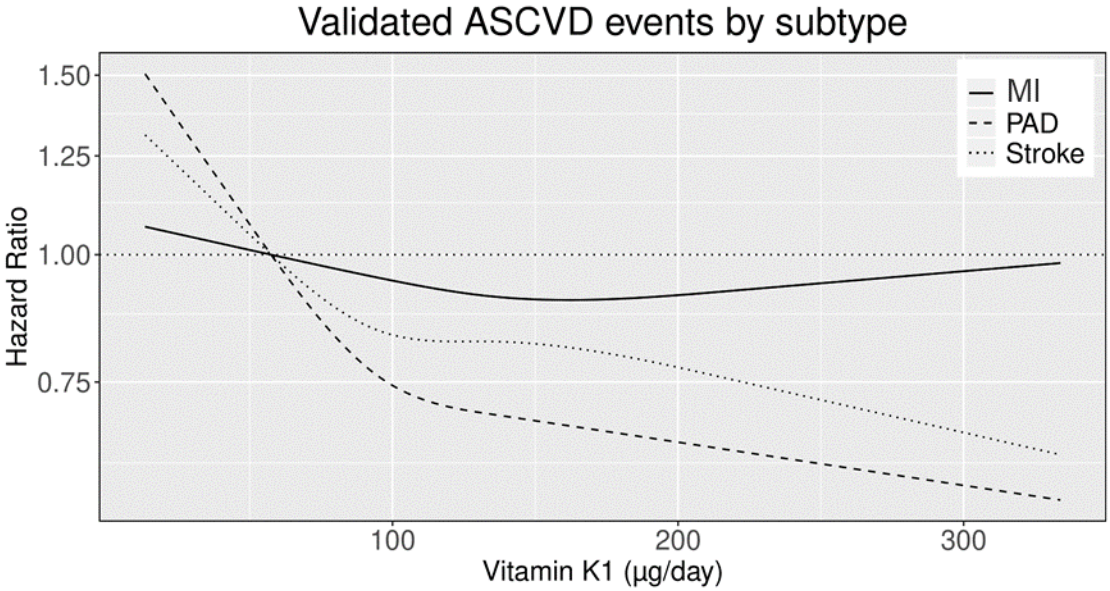
Hazard ratios (95% CI) for atherosclerotic cardiovascular disease hospitalisations during 23 years of follow-up, obtained from Cox proportional hazards models using Model 1b for adjustment: age, sex, BMI, smoking status, physical activity, alcohol intake, social economic status (income), and education.

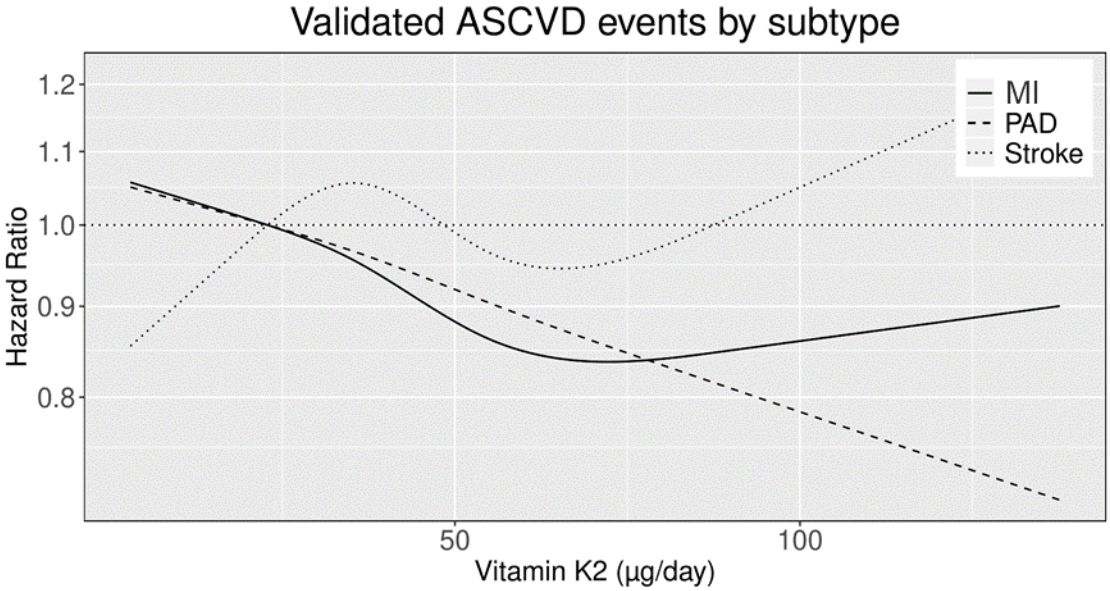
Table S5. Hazard ratios of colorectal cancer hospitalisations by quintiles of vitamin K intake

	Vitamin K intake quintiles				
	Q1	**Q2**	**Q3**	**Q4**	**Q5**
Vitamin K_1					
Model 1b	ref.	1.02 (0.92, 1.13)	1.02 (0.91, 1.14)	0.99 (0.88, 1.13)	0.93 (0.82, 1.07)
Vitamin K_2					
Model 1b	ref.	1.02 (0.93, 1.12)	0.98 (0.88, 1.10)	0.91 (0.80, 1.02)	0.89 (0.78, 1.01)

Hazard ratios (95% Confidence Intervals) for colorectal cancer hospitalisations (n = 1 716) during 23 years of follow-up, obtained from restricted cubic splines based on Cox proportional hazards models. Model 1b adjusted for age, sex, BMI, smoking status, physical activity, alcohol intake, social economic status (income), and education.

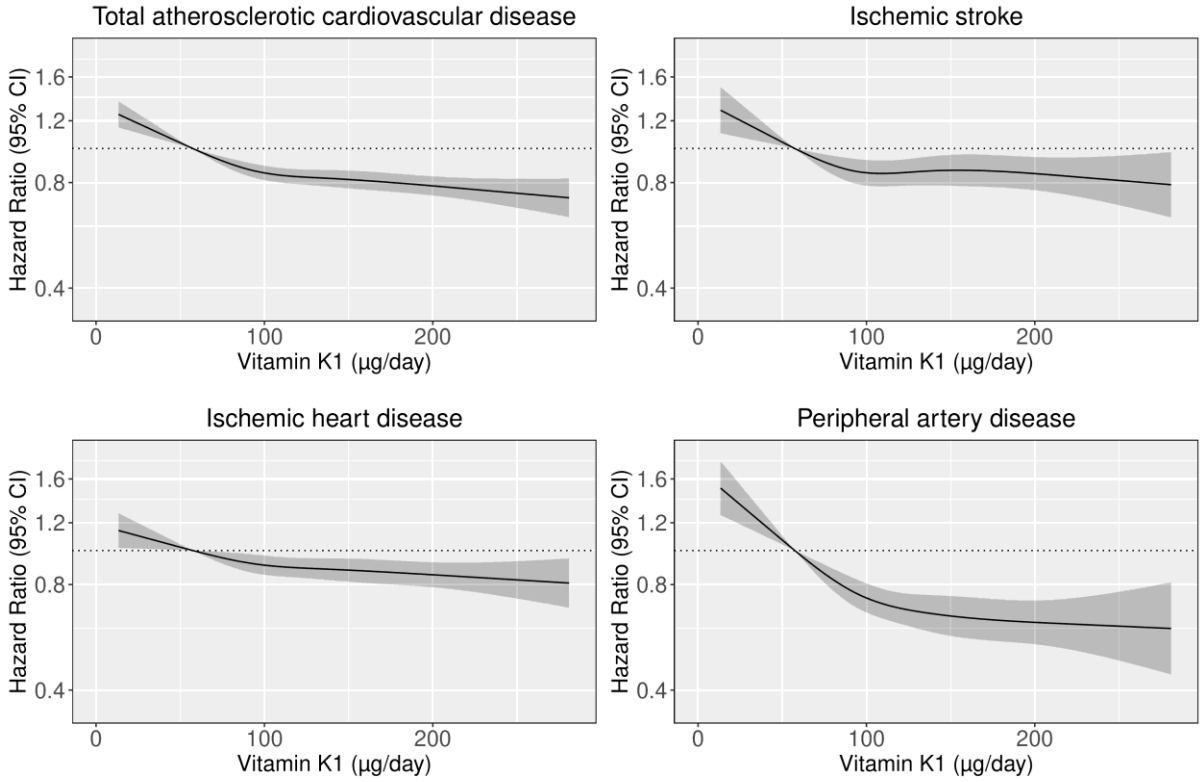
Figure S1. Hazard ratios from Cox proportional hazards models using restricted cubic spline curves describing the association between vitamin K_1 and vitamin K_2 intake (µg/day) and validated cases of myocardial infarction (MI), peripheral artery disease (PAD), and ischemic stroke.





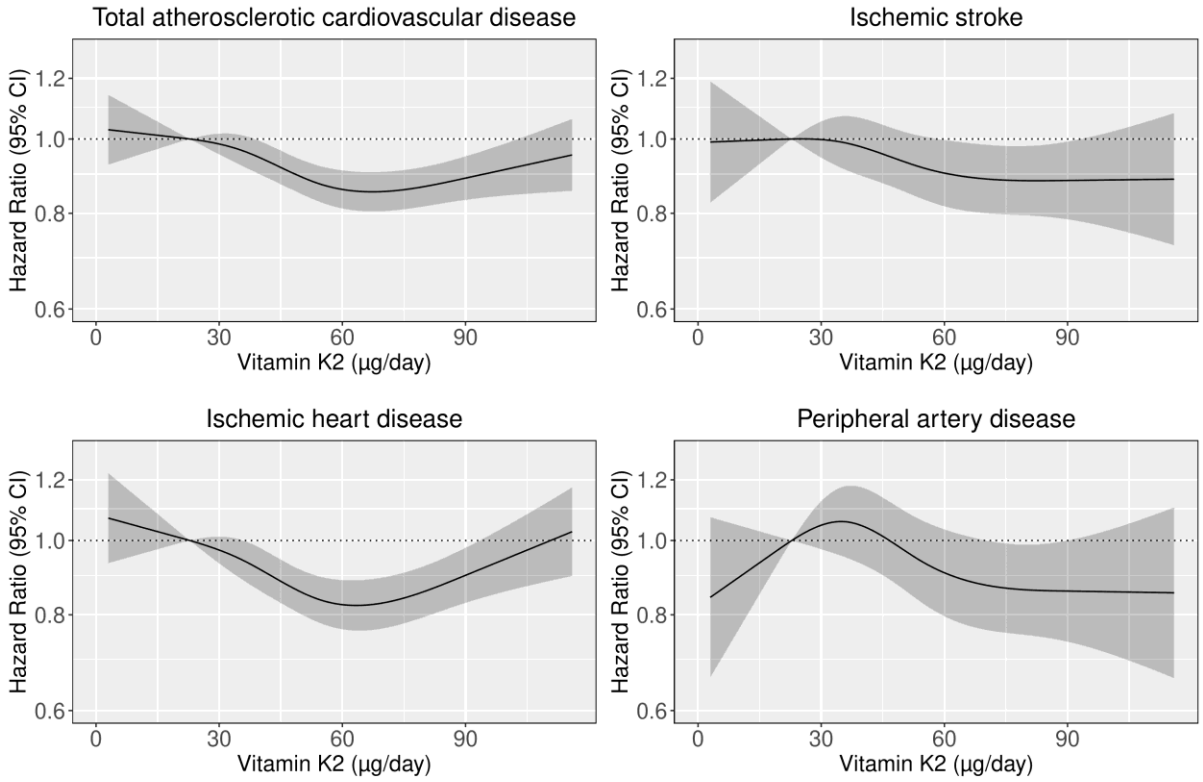
Hazard ratios are based on Cox proportional hazards models adjusted for age, sex, BMI, smoking status, social economic status (income), physical activity, alcohol intake, and education (Model 1b), and are comparing the specific level of vitamin K intake (horizontal axis) to the median intake for participants in the lowest intake quintile (vitamin K_1: 57 µg/day and vitamin K_2: 23 µg/day).

Figure S2. The association between vitamin K_1 intake (µg/day) and both total atherosclerotic cardiovascular disease (ASCVD) hospitalisations and subtypes of ASCVD hospitalisations (ischemic heart disease; peripheral artery disease; and ischemic stroke), after censoring participants upon prescription of a vitamin K antagonist.



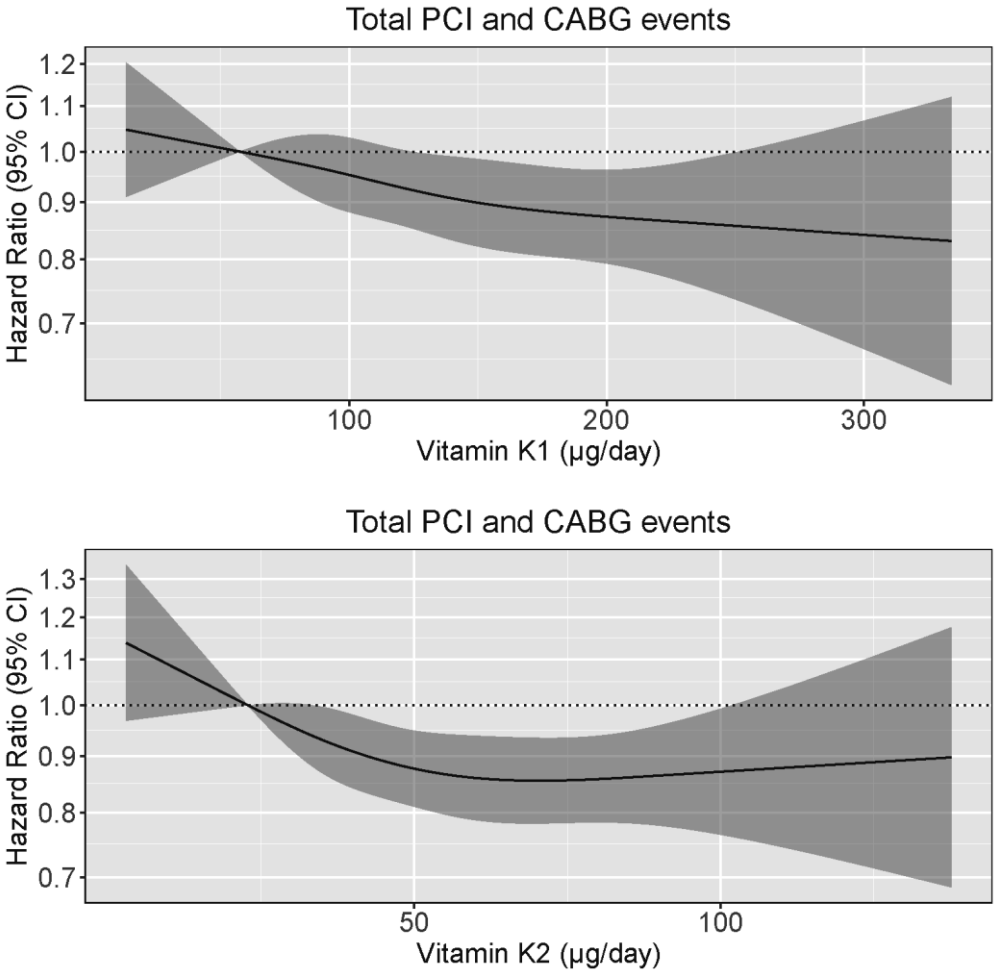
Hazard ratios are derived from Cox proportional hazards model with restricted cubic spline curves adjusting for age, sex, BMI, smoking status, social economic status (income), physical activity, alcohol intake, and education (Model 1b), and are comparing the specific level of vitamin K_1 intake (horizontal axis) to the median intake for participants in the lowest intake quintile (57 µg/day).

Figure S3. The association between vitamin K_2 intake (µg/day) and both total atherosclerotic cardiovascular disease (ASCVD) hospitalisations and subtypes of ASCVD hospitalisations (ischemic heart disease; peripheral artery disease; and ischemic stroke), after censoring participants upon prescription of a vitamin K antagonist.



Hazard ratios are derived from Cox proportional hazards model with restricted cubic spline curves adjusting for age, sex, BMI, smoking status, social economic status (income), physical activity, alcohol intake, and education (Model 1b), and are comparing the specific level of vitamin K_2 intake (horizontal axis) to the median intake for participants in the lowest intake quintile (23 µg/day).

Figure S4. Hazard ratios from Cox proportional hazards models using restricted cubic spline curves describing the association between vitamin K intake (µg/day) and both percutaneous coronary intervention (PCI) and coronary artery bypass grafting (CABG) procedures.



Hazard ratios are based on Cox proportional hazards models adjusted for age, sex, BMI, smoking status, social economic status (income), physical activity, alcohol intake, and education (Model 1b), and are comparing the specific level of vitamin K intake (horizontal axis) to the median intake for participants in the lowest intake quintile (vitamin K_1: 57 µg/day and vitamin K_2: 23 µg/day).