

SUPPLEMENTAL MATERIAL

Table S1. Sensitivity Analysis: Herpes Zoster and Long-term Risk of Myocardial Infarction* and Total CHD† in the Nurses' Health Study, the Nurses' Health Study II, and the Health Professionals Follow-up Study.

CHD Outcome	Years Since Herpes Zoster		
	Never	1-4 years	≥5 years
NHS			
MI*			
Cases/person-years	886/820954	47/32917	66/42604
Multivariable-adjusted‡ HR (95% CI)	1.00 (ref)	1.22 (0.91, 1.64)	1.12 (0.87, 1.45)
Total CHD†			
Cases/person-years	4419/825984	229/ 33176	262/42880
Multivariable-adjusted‡ HR (95% CI)	1.00 (ref)	1.18 (1.04, 1.35)	1.18 (1.04, 1.34)
NHS2			
MI*			
Cases/person-years	238/1144385	8/27973	14/55238
Multivariable-adjusted‡ HR (95% CI)	1.00 (ref)	1.14 (0.56, 2.32)	0.97 (0.56, 1.67)
Total CHD†			
Cases/person-years	1072/1145251	34/28003	77/55314
Multivariable-adjusted‡ HR (95% CI)	1.00 (ref)	1.04 (0.74, 1.46)	1.15 (0.91, 1.45)
HPFS			
MI*			
Cases/person-years	460/200811	14/4275	53/12350
Multivariable-adjusted‡ HR (95% CI)	1.00 (ref)	1.20 (0.70, 2.06)	1.36 (1.02, 1.81)
Total CHD†			
Cases/person-years	2301/202673	57/4320	169/12464
Multivariable-adjusted‡ HR (95% CI)	1.00 (ref)	1.01 (0.78, 1.32)	1.10 (0.94, 1.29)

*MI (myocardial infarction) outcome includes fatal and non-fatal myocardial infarction and fatal coronary heart disease. Individuals with coronary revascularization procedure (coronary artery bypass graft or percutaneous transluminal coronary angioplasty) were censored during follow-up.

†Total CHD includes fatal and non-fatal myocardial infarction, fatal coronary heart disease and coronary revascularization procedure (coronary artery bypass graft or percutaneous transluminal coronary angioplasty).

‡ Multivariable model adjusted for age, race, family history of heart disease (yes/no), smoking history, body mass index (BMI), waist circumference (≤70, 71-79,80-88, >88 cm), physical activity, diabetes mellitus, hypertension, elevated cholesterol, regular use (2+ days/week) of aspirin, thiazide diuretics, loop diuretics, "Statins" or other cholesterol-lowering drugs, calcium-channel blockers, beta blockers, angiotensin-converting-enzyme inhibitors, or "other" anti-hypertensive drugs, AHEI-2010 Score, menopausal status (in NHS and NHS II), oral contraceptive use (NHS II), post-menopausal hormonal therapy use (in NHS and NHS II), history of coronary heart disease (CHD), and a report of one or more of the following: cancer (other than non-melanoma skin cancer), rheumatoid arthritis (RA), Crohn's disease/ulcerative colitis (inflammatory bowel disease), systemic lupus erythematosus (SLE), asthma, diabetes, chronic obstructive pulmonary disease (COPD), oral steroids/corticosteroid use. NHS: Nurses' Health Study NHS II: Nurses' Health Study II HPFS: Health Professionals Follow-up Study HR: hazard ratio CI: confidence interval

NHS: Nurses' Health Study

NHS II: Nurses' Health Study II

HPFS: Health Professionals Follow-up Study

HR: Hazard Ratio

CI: Confidence Interval

Table S2. Herpes Zoster and Long-term Risk of Stroke in the Nurses' Health Study, the Nurses' Health Study II, and the Health Professionals Follow-up Study, Stratified by Potentially Immunocompromising Conditions*.

Stroke Immunocompromising Conditions (Yes/No)	Years Since Herpes Zoster		
	Never	1-4 years	≥5 years
NHS			
Yes			
Cases/Person-years	1076/362841	51/17146	114/24395
MVHR [†] (95% CI)	1.00 (ref)	0.95 (0.72, 1.26)	1.37 (1.12, 1.67)
No			
Cases/Person-years	1105/ 516980	44/ 18783	71 / 22216
MVHR [†] (95% CI)	1.00 (ref)	0.98 (0.73, 1.33)	1.17 (0.91, 1.49)
p-interaction	0.45		
NHS II			
Yes			
Cases/Person-years	192/824368	8/17644	15/32998
MVHR [†] (95% CI)	1.00 (ref)	1.28 (0.66, 2.51)	2.09 (1.44, 3.04)
No			
Cases/Person-years	280/824544	12/17724	25/32861
MVHR [†] (95% CI)	1.00 (ref)	1.11 (0.55, 2.25)	1.03 (0.61, 1.73)
p-interaction	0.05		
HPFS			
Yes			
Cases/Person-years	260/98370	8/2456	21/7724
MVHR [†] (95% CI)	1.00 (ref)	0.99 (0.49, 2.01)	0.97 (0.62, 1.52)
No			
Cases/Person-years	281/153515	13/3121	22/8672
MVHR [†] (95% CI)	1.00 (ref)	1.79 (1.02, 3.16)	1.19 (0.77, 1.85)
p-interaction	0.68		

*Potentially immunocompromising conditions and treatments included a report of one or more of the following: cancer (other than non-melanoma skin cancer), rheumatoid arthritis (RA), Crohn's disease/ulcerative colitis (inflammatory bowel disease), systemic lupus erythematosus (SLE), asthma, diabetes, chronic obstructive pulmonary disease (COPD), oral steroids/corticosteroid use.

[†]Multivariable model adjusted for age, race, family history of heart disease (yes/no), smoking history, body mass index (BMI), waist circumference (≤70, 71-79, 80-88, >88 cm), physical activity, diabetes mellitus, hypertension, elevated cholesterol, regular use (2+ days/week) of aspirin, thiazide diuretics, loop diuretics, "Statins" or other cholesterol-lowering drugs, calcium-channel blockers, beta blockers, angiotensin-converting-enzyme inhibitors, or "other" anti-hypertensive drugs, AHEI-2010 Score, menopausal status (in NHS and NHS II), oral contraceptive use (NHS II), post-menopausal hormonal therapy use (in NHS and NHS II), and history of coronary heart disease.

NHS: Nurses' Health Study
 NHS II: Nurses' Health Study II
 HPFS: Health Professionals Follow-up Study
 MVHR: Multivariable-adjusted Hazard Ratio
 CI: Confidence Interval

Table S3. Herpes Zoster and Long-term Risk of CHD in the Nurses' Health Study, the Nurses' Health Study II, and the Health Professionals Follow-up Study, Stratified by Potentially Immunocompromising Conditions.*

CHD Immunocompromising Conditions (Yes/No)	Years Since Herpes Zoster		
	Never	1-4 years	≥5 years
NHS			
Yes			
Cases/Person-years	2146/335777	113/15636	147/22073
MVHR [†] (95% CI)	1.00 (ref)	1.08 (0.89, 1.31)	1.13 (0.95, 1.34)
No			
Cases/Person-years	2273/ 490208	116/17540	115/20807
MVHR [†] (95% CI)	1.00 (ref)	1.29 (1.07, 1.55)	1.24 (1.02, 1.50)
p-interaction	0.20		
NHS II			
Yes			
Cases/Person-years	431/328608	15/10545	52/22782
MVHR [†] (95% CI)	1.00 (ref)	0.94 (0.56, 1.58)	1.48 (1.11, 1.98)
No			
Cases/Person-years	641/816644	19/17458	25/32532
MVHR [†] (95% CI)	1.00 (ref)	1.15 (0.73, 1.82)	0.79 (0.53, 1.18)
p-interaction	0.03		
HPFS			
Yes			
Cases/Person-years	988/75766	23/1822	83/5777
MVHR [†] (95% CI)	1.00 (ref)	0.86 (0.56, 1.30)	1.07 (0.85, 1.34)
No			
Cases/Person-years	1313/126907	34/2498	86/6687
MVHR [†] (95% CI)	1.00 (ref)	1.14 (0.81, 1.61)	1.13 (0.90, 1.40)
p-interaction	0.49		

*Potentially immunocompromising conditions and treatments included a report of one or more of the following: cancer (other than non-melanoma skin cancer), rheumatoid arthritis (RA), Crohn's disease/ulcerative colitis (inflammatory bowel disease), systemic lupus erythematosus (SLE), asthma, diabetes, chronic obstructive pulmonary disease (COPD), oral steroids/corticosteroid use.

[†]Multivariable model adjusted for age, race, family history of heart disease (yes/no), smoking history, body mass index (BMI), waist circumference (≤70, 71-79, 80-88, >88 cm), physical activity, diabetes mellitus, hypertension, elevated cholesterol, regular use (2+ days/week) of aspirin, thiazide diuretics, loop diuretics, "Statins" or other cholesterol-lowering drugs, calcium-channel blockers, beta blockers, angiotensin-converting-enzyme inhibitors, or "other" anti-hypertensive drugs, AHEI-2010 Score, menopausal status (in NHS and NHS II), oral contraceptive use (NHS II), post-menopausal hormonal therapy use (in NHS and NHS II), and history of stroke.

CHD: Coronary heart disease, defined as fatal or non-fatal myocardial infarction, fatal CHD, or coronary revascularization procedure (coronary artery bypass graft or percutaneous transluminal coronary angioplasty)

NHS: Nurses' Health Study

NHS II: Nurses' Health Study II

HPFS: Health Professionals Follow-up Study

MVHR: Multivariable-adjusted Hazard Ratio

CI: Confidence Interval

Table S4. Herpes Zoster and Long-term Risk of Cardiovascular Disease (Composite)* in the Nurses' Health Study, the Nurses' Health Study II, and the Health Professionals Follow-up Study, Stratified by Potentially Immunocompromising Conditions†

CVD*	Years Since Herpes Zoster		
	Never	1-4 years	≥5 years
Immunocompromising Conditions (Yes/No)			
NHS			
Yes			
Cases/Person-years	2866/323356	146/15095	227/20983
MVHR‡ (95% CI)	1.00 (ref)	1.04 (0.88, 1.23)	1.23 (1.07, 1.41)
No			
Cases/Person-years	3094/477455	141/17005	173/19952
MVHR‡ (95% CI)	1.00 (ref)	1.16 (0.98, 1.37)	1.27 (1.09, 1.49)
p-interaction	0.41		
NHS II			
Yes			
Cases/Person-years	607/322700	24/10313	78/22164
MVHR‡ (95% CI)	1.00 (ref)	1.09 (0.72, 1.64)	1.60 (1.26, 2.03)
No			
Cases/Person-years	890/808644	28/17225	41/31988
MVHR‡ (95% CI)	1.00 (ref)	1.24 (0.85, 1.82)	0.93 (0.68, 1.28)
p-interaction	0.02		
HPFS			
Yes			
Cases/Person-years	1080/73955	28/1766	90/5626
MVHR‡ (95% CI)	1.00 (ref)	0.94 (0.64, 1.37)	1.07 (0.86, 1.33)
No			
Cases/Person-years	1432/124836	42/2446	97/6496
MVHR‡ (95% CI)	1.00 (ref)	1.30 (0.95, 1.77)	1.17 (0.95, 1.45)
p-interaction	0.28		

*Cardiovascular disease (CVD) is a composite of total stroke and coronary heart disease (CHD), defined as non-fatal or fatal myocardial infarction, fatal CHD, or coronary revascularization procedure

†Potentially immunocompromising conditions and treatments included a report of one or more of the following: cancer (other than non-melanoma skin cancer), rheumatoid arthritis (RA), Crohn's disease/ulcerative colitis (inflammatory bowel disease), systemic lupus erythematosus (SLE), asthma, diabetes, chronic obstructive pulmonary disease (COPD), oral steroids/corticosteroid use.

‡Multivariable model adjusted for age, race, family history of heart disease (yes/no), smoking history, body mass index (BMI), waist circumference (≤70, 71-79, 80-88, >88 cm), physical activity, diabetes mellitus, hypertension, elevated cholesterol, regular use (2+ days/week) of aspirin, thiazide diuretics, loop diuretics, "Statins" or other cholesterol-lowering drugs, calcium-channel blockers, beta blockers, angiotensin-converting-enzyme inhibitors, or "other" anti-hypertensive drugs, AHEI-2010 Score, menopausal status (in NHS and NHS II), oral contraceptive use (NHS II), post-menopausal hormonal therapy use (in NHS and NHS II), and history of stroke.

CHD: Coronary heart disease, defined as fatal/non-fatal myocardial infarction, fatal CHD, or coronary revascularization procedure (coronary artery bypass graft, percutaneous transluminal coronary angioplasty)

NHS: Nurses' Health Study

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MVHR: Multivariable-adjusted Hazard Ratio

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