

SUPPLEMENTAL MATERIAL

Supplement Method. Strategy of literature search for prospective studies that examined the association between circulating 25(OH)-vitamin D concentrations and risk of cardiovascular disease.

Published articles from 1966 through February 2012 were identified through search of MEDLINE and EMBASE. The same search strategy was applied to each electronic database. Search terms were selected based on analysis of the Medical Subject Headings and text words from *a priori* identified key articles.

Search terms used for vitamin D included plasma vitamin D, serum vitamin D, circulating vitamin D, 25-hydroxy vitamin D, 1,25-dihydroxy vitamin D, calcidiol, and calcitriol, combined with “OR”.

Search terms used for CVD included cardiovascular disease, ischemic heart disease, coronary artery disease, cardiovascular mortality, myocardial infarction, and stroke, combined with “OR”.

The search results using vitamin D related terms and CVD related terms were then combined using “AND”.

The search results were further restricted to English-language articles, human studies, and adult subjects aged ≥ 18 years.

The reference lists of selected articles were also manually searched for additional studies.

Supplement Table. Characteristics of the selected prospective studies of circulating 25(OH)-vitamin D levels in association with risk of cardiovascular disease (CVD)

Source	Country	Study Design	Study Population				Follow-up, y	CVD endpoint
			Age, y	Source Cohort	Characteristics	N, gender		
Marniemi et al, ¹⁵ 2005	Finland	Cohort	65-99		Residents in the city of Turku and surrounding rural areas	361 men 394 women	10 (maximum)	Incident MI Incident stroke
Wang et al, ¹¹ 2008	United States	Cohort	59±9	Framingham Offspring Study	Offspring and their spouses of the original Framingham Heart Study participants	792 men 947 women	5.4 (mean)	Incident CVD
Giovannucci et al, ¹² 2008	United States	Nested case-control	63.8±8.6	HPFS	US male health professionals	1354 men	10	Incident MI
Dobnig et al, ¹³ 2008	Germany	Cohort	62±10	LURIC	Patients referred for coronary angiography	2268 men 990 women	7.7 (median)	CVD mortality
Pilz et al, ²⁴ 2008	Germany	Cohort	61.8	LURIC	Patients referred for coronary angiography	3299 men and women	7.7 (median)	Stroke mortality
Pilz et al, ²⁵ 2008	Germany	Cohort	62±11 for men 65±10 for women	LURIC	Patients referred for coronary angiography	3299 men and women	7.7 (median)	CVD mortality
Melamed et al, ¹⁶ 2008	United States	Cohort	≥20	NHANES III	Nationally representative adults	6061 men 7270 women	8.7 (median)	CVD mortality
Pilz et al, ¹⁴ 2009	Netherlands	Cohort	50-75	Hoorn Study	Residents of town of Hoorn	303 men 311 women	6.2 (mean)	CVD mortality
Ginde et al, ²⁶ 2009	United States	Cohort	73±0.2	NHANES III	Noninstitutionalized US adults ≥65 y	1500 men 1908 women	7.3 (median)	CVD mortality
Kilkkinen, et al, ²⁷ 2009	Finland	Cohort	49.4±13.6	Mini-Finland Health Survey	Nationally representative adults ≥30 y	2817 men 3402 women	27.1 (median)	CVD mortality CHD mortality Stroke mortality
Bolland et al, ²⁸ 2010	New Zealand	Cohort	74±4		Healthy community-dwelling women	1471 women	5	Total CVD MI Stroke CVD mortality
Semba, et al, ²⁹ 2010	Italy	Cohort	≥65	InCHIANTI	Residents in two towns in Tuscany	755 men 251 women	6.5	CVD mortality

Fiscella et al, ³⁰ 2010	United States	Cohort	43.6	NHANES III	Nationally representative adults ≥ 18 y	15,363 men and women	9.0 (mean)	CVD mortality
Anderson et al, ³¹ 2010	United States	Cohort	66.6 \pm 10.8	Intermountain Healthcare system	General healthcare population	20,069 men and women	1.3 (mean) 9.3 (maximum)	Incident MI Incident stroke Composite
Cawthon et al, ³² 2010	United States	Cohort	≥ 65	MrOS	Community-dwelling US men ≥ 65 y	1490 men	7.3 (mean)	CVD mortality ^c
Michaelsson et al, ³³ 2010	Sweden	Cohort	71 \pm 0.6	ULSAM	Residents living in Uppsala	1194 men	12.7 (median)	CVD mortality
Hutchinson et al, ³⁴ 2010	Norway	Cohort	58.9 \pm 10.2	Tromso Study	Residents of city of Tromso	7161 men and women	11.7 (mean)	CVD mortality
Jassal et al, ³⁵ 2010	United States	Cohort	74	Rancho Bernardo Study	Community-dwelling adults living in South California	411 men and 662 women	6.4 (mean) 10.4 (maximum)	CVD mortality
Messenger et al, ³⁶ 2011	United States	Cohort	76.4	MrOS	Community-dwelling US men ≥ 65 y	3094 men	4.4 (median)	Total CVD
Hosseinpanah et al, ⁴¹ 2011	Iran	Nested case-control	56.8 \pm 11.2	Tehran Lipid and Glucose Study	Representative sample of Tehranian adults	258 men 244 women	5.7	Incident CVD
Eaton et al, ³⁷ 2011	United States	Cohort	65.7	WHI	Postmenopausal US women aged 50-79 y	2429 women	>10.5	CVD mortality
Kestenbaum et al, ³⁸ 2011	United States	Cohort	73.7	CHS	Ambulatory men and women aged ≥ 65 y	701 men 1611 women	14.0 (median)	Incident CVD
Deo et al, ³⁹ 2012	United States	Cohort	73.2	CHS	Ambulatory men and women aged ≥ 65 y	697 men 1615 women	14.0 (median)	Sudden cardiac death
Michos et al, ⁴⁰ 2012	United States	Cohort	48.8	NHANES III	Nationwide noninstitutionalized US adults aged ≥ 30 y	3654 men 4327 women	14.1 (median)	Stroke mortality

Abbreviations: CVD, cardiovascular disease; MI, myocardial infarction; HPFS, Health Professionals Follow-up Study; LURIC, Ludwigshafen Risk and Cardiovascular Health; NHANES III: the Third National Health and Nutrition Examination Survey; InCHIANTI: Aging in the Chianti Area; MrOS: Osteoporotic Fractures in Men; ULSAM: Uppsala Longitudinal Study of Adult Men; WHI: Women's Health Initiative; CHS: Cardiovascular Health Study.