

Supplementary Table S4 Characteristics of the 338 participants at baseline by study arm - Per protocol analysis

Characteristics of participants	Placebo (n=80)	Vitamin D <sub>3</sub>		
		1,000 IU/d (n=85)	2,000 IU/d (n=89)	3,000 IU/d (n=84)
Age (y) (mean±SD)	42.5 ± 6.0	43.0 ± 4.7	42.9 ± 4.9	42.5 ± 5.6
White race (%)	95.0	100.0	100.0	96.4
Body mass index (kg/m <sup>2</sup> ) (mean±SD)	24.1 ± 4.1	24.8 ± 5.4	24.3 ± 4.1	24.2 ± 3.7
Number of full-term pregnancies (mean±SD)	1.3 ± 1.1	1.7 ± 1.0	1.7 ± 1.2	1.7 ± 1.0
Hormonal contraceptive ever use (%)	92.5	94.1	94.4	95.2
Natural menstrual cycles (%)	63.8	75.3	69.7	72.6
Personal history of breast biopsy (%)	7.5	5.9	7.9	8.3
Dietary vitamin D intake <sup>a</sup> (IU/d) (mean±SD)	205 ± 178	176 ± 103	178 ± 98	171 ± 100
Use of supplements with vitamin D <sup>b</sup> (%)	35.0	38.8	38.2	40.5
Vitamin D from supplements (IU/d) (mean±SD)	420 ± 623	286 ± 325	463 ± 448	431 ± 402
Total vitamin D intake <sup>a</sup> (IU/d) (mean±SD)	351 ± 440	288 ± 256	359 ± 358	350 ± 345
Dietary calcium intake <sup>a</sup> (mg/d) (mean±SD)	1065 ± 634	974 ± 425	969 ± 394	973 ± 485
Use of supplements with calcium <sup>b</sup> (%)	33.8	37.7	40.5	33.3
Calcium from supplements (mg/d) (mean±SD)	99 ± 152	129 ± 227	125 ± 169	213 ± 282
Total calcium intake <sup>a</sup> (mg/d) (mean±SD)	1098 ± 633	1023 ± 438	1020 ± 388	1046 ± 497
Food energy intake <sup>a</sup> (kcal/d) (mean±SD)	1765 ± 681	1641 ± 480	1711 ± 596	1751 ± 658
Minutes/week outdoors <sup>c</sup> (mean±SD)	486 ± 384	369 ± 240	387 ± 280	428 ± 284
Season at time of baseline mammography (%)				
Winter	28.8	22.4	28.1	29.8
Spring	33.8	41.2	33.7	39.3
Summer	15.0	10.6	13.5	11.9
Fall	22.5	25.9	24.7	19.1
Serum 25(OH)D <sub>3</sub> (nmol/L) (mean±SD)	65.7 (23.5)	65.1 (24.7)	65.6 (25.4)	59.3 (21.0)
Screening mammography <sup>d</sup> (%)	90.0	89.4	87.6	86.9
Digital direct radiography <sup>e</sup> (%)	50.0	50.6	50.6	47.6
Radiology clinics <sup>f</sup> (%)				
Site 1	53.8	55.3	55.1	56.0
Site 2	13.8	14.1	11.2	14.3
Site 3	10.0	7.1	11.2	10.7
Site 4	6.3	7.1	3.4	7.1
Site 5	3.8	3.5	3.4	2.4
Site 6	12.5	12.9	15.7	9.5

<sup>a</sup> In the last year, among the 333 women who completed the food frequency questionnaire at baseline (placebo, n=80; 1,000 IU/d, n=84; 2,000 IU/d, n=87; 3,000 IU/d, n=82).

<sup>b</sup> In the last year, based on face-to-face interview at recruitment. Mean supplemental intake is provided among those having supplemental intake.

<sup>c</sup> Between 10 a.m. and 4 p.m., in the last year.

<sup>d</sup> Versus mammography for symptoms.

<sup>e</sup> Versus digital computed radiography.

<sup>f</sup> Radiology clinics (sites) where mammograms were done correspond to randomization strata.