

## Supplementary Online Content

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**eTable 1.** Association between randomized multivitamin assignment and the risk of total cancer according to baseline characteristics and treatment assignment in the Physicians' Health Study II

**eTable 2.** Vitamins and minerals contained in the Centrum Silver formulation used in the Physicians' Health Study II trial

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1.** Association Between Randomized Multivitamin Assignment and the Risk of Total Cancer According to Baseline Characteristics and Treatment Assignment in the Physicians' Health Study II

Group	Multivitamin		Hazard Ratio <sup>a</sup> (95% CI)	P Interaction
	Active	Placebo		
<b>Age, years</b>				0.06
50-59	2,944 (335)	2,947 (349)	0.96 (0.83-1.11)	
60-69	2,348 (529)	2,348 (523)	1.01 (0.89-1.14)	
≥70	2,025 (426)	2,029 (507)	0.82 (0.72-0.93)	
<b>Body mass index, kg/m<sup>2</sup></b>				0.53
<25	3,081 (518)	3,059 (377)	0.88 (0.78-0.99)	
25-29	3,485 (635)	3,507 (653)	0.96 (0.87-1.08)	
≥30	751 (137)	755 (148)	0.92 (0.73-1.16)	
<b>Smoking status</b>				0.20
Never	4,145 (657)	4,107 (721)	0.89 (0.80-0.99)	
Former	2,908 (579)	2,944 (587)	0.99 (0.89-1.12)	
Current	255 (53)	269 (70)	0.72 (0.50-1.03)	
<b>Exercise ≥1 time/week</b>				0.34
No	2,699 (497)	2,806 (568)	0.88 (0.78-1.00)	
Yes	4,444 (768)	4,328 (784)	0.95 (0.86-1.05)	
<b>Alcohol consumption</b>				0.44
Rarely/never	1,391 (220)	1,339 (234)	0.87 (0.72-1.05)	
≥1 drink/month	5,874 (1,061)	5,942 (1,136)	0.94 (0.86-1.02)	
<b>Current aspirin use</b>				0.18
No	1,625 (256)	1,636 (302)	0.83 (0.70-0.98)	
Yes	5,602 (1,021)	5,565 (1,062)	0.95 (0.87-1.03)	
<b>Parental history of cancer <sup>b</sup></b>				0.019
No	2,956 (476)	2,881 (528)	0.86 (0.76-0.98)	
Yes	3,319 (652)	3,402 (639)	1.05 (0.94-1.17)	
<b>History of cancer</b>				0.07
No	6,669 (1,195)	6,660 (1,253)	0.94 (0.87-1.02)	
Yes	648 (95)	664 (126)	0.73 (0.56-0.96)	
<b>Fruit and vegetable intake <sup>c</sup></b>				0.50
<4 servings/day	2,994 (505)	3,075 (542)	0.94 (0.84-1.06)	
4-<7 servings/day	2,729 (514)	2,615 (510)	0.97 (0.85-1.09)	
≥7 servings/day	935 (144)	962 (174)	0.83 (0.66-1.03)	

<b>Multivitamin</b>				
<b>Group</b>	<b>No. of Men (No. of Total Cancer Events)</b>		<b>Hazard Ratio <sup>a</sup> (95% CI)</b>	<b>P Interaction</b>
	<b>Active</b>	<b>Placebo</b>		
<b>Whole grain intake <sup>c</sup></b>				0.68
<2 servings/day	4,952 (863)	4,999 (905)	0.95 (0.86-1.04)	
≥2 servings/day	1,685 (297)	1,644 (319)	0.91 (0.78-1.07)	
<b>Red meat intake <sup>c</sup></b>				0.30
<1 serving/day	4,900 (834)	4,928 (860)	0.97 (0.88-1.06)	
≥1 servings/day	1,736 (326)	1,704 (360)	0.88 (0.76-1.02)	
<b>Randomized to vitamin C</b>				0.82
Placebo	3,653 (638)	3,659 (689)	0.92 (0.82-1.02)	
Active	3,664 (652)	3,665 (690)	0.93 (0.84-1.04)	
<b>Randomized to vitamin E</b>				0.93
Placebo	3,667 (643)	3,659 (684)	0.92 (0.83-1.03)	
Active	3,650 (647)	3,665 (695)	0.93 (0.83-1.03)	
<b>Randomized to beta carotene</b>				0.50
Placebo	3,632 (638)	3,645 (664)	0.95 (0.85-1.06)	
Active	3,685 (652)	3,679 (715)	0.90 (0.81-1.00)	

Abbreviations: CI, confidence interval; HR, hazard ratio.

- a Adjusted for age, PHS cohort (original PHS I participant, new PHS II participant), and randomized treatment assignment (beta carotene, multivitamin, and vitamin C).
- b Excludes 2,083 men with missing information on parental history of cancer.
- c Among 13,310, 13,280, and 13,268 men with available dietary data on fruit and vegetable, whole grain, and red meat intake, respectively.

**eTable 2.** Vitamins and Minerals Contained in the Centrum Silver Formulation Used in the Physicians' Health Study II Trial

<b>Vitamin or mineral</b>	<b>Amount</b>
Vitamin A (IU)	5000*
Vitamin C (mg)	60
Vitamin D (IU)	400
Vitamin E (IU)	45
Vitamin K (µg)	10
Thiamin (mg)	1.5
Riboflavin (mg)	1.7
Niacin (mg)	20
Vitamin B6 (mg)	3
Folic Acid (µg)	400
Vitamin B12 (µg)	25
Biotin (µg)	30
Pantothenic Acid (mg)	10
Calcium (mg)	200
Iron (mg)	4
Phosphorus (mg)	48
Iodine (µg)	150
Magnesium (mg)	100
Zinc (mg)	15
Selenium (µg)	20
Copper (mg)	2
Manganese (mg)	3.5
Chromium (µg)	130
Molybdenum (µg)	160
Chloride (mg)	72.6
Potassium (mg)	80
Boron (µg)	150
Nickel (µg)	5
Vanadium (µg)	10
Silicon (mg)	2

\* 50% as beta carotene