

**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
	No. of Men (No. of Total Cancer Events)			
	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>				0.26
<25	3,039 (502)	3,021 (573)	0.86 (0.76-0.97)	
25-29	2,463 (627)	2,348 (642)	0.97 (0.87-1.08)	
≥30	815 (161)	826 (163)	1.01 (0.81-1.26)	
<b>Smoking status</b>				0.19
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>				0.012
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>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>Multivitamin</b>				
<b>Group</b>	<b><u>No. of Men</u></b>		<b>Hazard Ratio <sup>a</sup> (95% CI)</b>	<b><i>P</i></b> <b>Interaction</b>
	<b><u>(No. of Total Cancer Events)</u></b>			
	<b>Active</b>	<b>Placebo</b>		
<b>Red meat intake <sup>c</sup></b>				<b>0.30</b>
<b>&lt;1 serving/day</b>	4,900 (834)	4,928 (860)	0.97 (0.88-1.06)	
<b>≥1 servings/day</b>	1,736 (326)	1,704 (360)	0.88 (0.76-1.02)	
<b>Randomized to vitamin C</b>				<b>0.82</b>
<b>Placebo</b>	3,653 (638)	3,659 (689)	0.92 (0.82-1.02)	
<b>Active</b>	3,664 (652)	3,665 (690)	0.93 (0.84-1.04)	
<b>Randomized to vitamin E</b>				<b>0.93</b>
<b>Placebo</b>	3,667 (643)	3,659 (684)	0.92 (0.83-1.03)	
<b>Active</b>	3,650 (647)	3,665 (695)	0.93 (0.83-1.03)	
<b>Randomized to β-carotene</b>				<b>0.50</b>
<b>Placebo</b>	3,632 (638)	3,645 (664)	0.95 (0.85-1.06)	
<b>Active</b>	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