

Appendix Table 1. Efficacy of Multivitamin and Mineral Supplement Use in Primary Prevention of Cancer\*

Study (Reference)	Disease End Point	Study Supplement†	Participants, n‡			Disease Events, n‡			Unadjusted Relative Risk (95% CI)	Unadjusted Odds Ratio (95% CI)	Comments
			Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients	Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients			
Linxian General Population Trial (18)	Total cancer incidence	Retinol + zinc	29 584	–	–	1298	–	–	1.00 (0.89–1.11)	–	
		Riboflavin + niacin							0.95 (0.85–1.06)	–	
		Vitamin C + molybdenum							1.06 (0.95–1.18)	–	
		β-Carotene + selenium + α-tocopherol							0.93 (0.83–1.03)	–	
	Gastric cancer incidence	Retinol + zinc	29 584	–	–	539	–	–	0.96 (0.81–1.14)	–	
		Riboflavin + niacin							1.04 (0.88–1.23)	–	
		Vitamin C + molybdenum							1.10 (0.92–1.30)	–	
		β-Carotene + selenium + α-tocopherol							0.84 (0.71–1.00)	–	
	Esophageal cancer incidence	Retinol + zinc	29 584	–	–	640	–	–	1.07 (0.92–1.25)	–	
		Riboflavin + niacin							0.86 (0.74–1.01)	–	
		Vitamin C + molybdenum							1.06 (0.91–1.24)	–	
		β-Carotene + selenium + α-tocopherol							1.02 (0.87–1.19)	–	
	Esophageal/cardia cancer incidence	Retinol + zinc	29 584	–	–	1075	–	–	1.05 (0.93–1.19)	–	
		Riboflavin + niacin							0.94 (0.83–1.06)	–	
		Vitamin C + molybdenum							1.06 (0.94–1.20)	–	
		β-Carotene + selenium + α-tocopherol							0.94 (0.84–1.06)	–	
	Total cancer death	Retinol + zinc	29 584	–	–	792	–	–	0.97 (0.85–1.12)	–	
		Riboflavin + niacin							0.98 (0.85–1.13)	–	
		Vitamin C + molybdenum							1.06 (0.92–1.21)	–	
		β-Carotene + selenium + α-tocopherol							0.87 (0.75–1.00)	–	
	Stomach cancer death	Retinol + zinc	29 584	–	–	331	–	–	1.03 (0.83–1.28)	–	
		Riboflavin + niacin							1.00 (0.81–1.24)	–	
		Vitamin C + molybdenum							1.09 (0.88–1.36)	–	

Appendix Table 1—Continued

Study (Reference)	Disease End Point	Study Supplement†	Participants, n‡			Disease Events, n‡			Unadjusted Relative Risk (95% CI)	Unadjusted Odds Ratio (95% CI)	Comments
			Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients	Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients			
		$\beta$ -Carotene + selenium + $\alpha$ -tocopherol							0.79 (0.64–0.99)	–	
	Esophageal cancer death	Retinol + zinc	29 584	–	–	360	–	–	0.93 (0.76–1.15)	–	
		Riboflavin + niacin							0.90 (0.73–1.11)	–	
		Vitamin C + molybdenum							1.05 (0.85–1.29)	–	
		$\beta$ -Carotene + selenium + $\alpha$ -tocopherol							0.96 (0.78–1.18)	–	
	Esophageal/gastric cardia cancer death	Retinol + zinc	29 584	–	–	613	–	–	1.04 (0.89–1.22)	–	
		Riboflavin + niacin							0.95 (0.81–1.11)	–	
		Vitamin C + molybdenum							1.06 (0.90–1.24)	–	
		$\beta$ -Carotene + selenium + $\alpha$ -tocopherol							0.90 (0.77–1.05)	–	
Linxian General Population Trial: end-of-trial endoscopy survey (20)	Esophageal and gastric cancer and dysplasia	Retinol + zinc	391	197	194	60	28	32	–	0.83 (0.47–1.46)	Adjusted for age, sex, smoking, and alcohol use
		Riboflavin + niacin		194	197		34	26	–	1.39 (0.79–2.44)	Adjusted for age, sex, smoking, and alcohol use
		Vitamin C + molybdenum		206	185		37	23	–	1.61 (0.91–2.86)	Adjusted for age, sex, smoking, and alcohol use
		$\beta$ -Carotene + selenium + $\alpha$ -tocopherol		177	214		25	35	–	0.83 (0.47–1.46)	Adjusted for age, sex, smoking, and alcohol use
	Esophageal and gastric cancer	Retinol + zinc	391	197	194	31	13	18	–	0.61 (0.29–1.31)	
		Riboflavin + niacin		194	197		18	13	–	1.46 (0.68–3.11)	
		Vitamin C + molybdenum		206	185		21	10	–	1.99 (0.90–4.41)	
		$\beta$ -Carotene + selenium + $\alpha$ -tocopherol		177	214		12	19	–	0.79 (0.36–1.69)	

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Appendix Table 1—Continued

Study (Reference)	Disease End Point	Study Supplement†	Participants, n‡			Disease Events, n‡			Unadjusted Relative Risk (95% CI)	Unadjusted Odds Ratio (95% CI)	Comments
			Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients	Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients			
SU.VI.MAX (23)	Cancer incidence	Vitamin C + vitamin E + $\beta$ -carotene + selenium + zinc	12 741	6364	6377	562	267	295	0.90 (0.76–1.06)		<i>P</i> = 0.02 for the interaction between sex and randomized group
	Women only		7713	3844	3869	350	179	171	1.04 (0.85–1.29)	–	
	Men only		5028	2520	2508	212	88	124	0.69 (0.53–0.91)§	–	
SU.VI.MAX (24)	Prostate cancer incidence	Vitamin C + vitamin E + $\beta$ -carotene + selenium + zinc	5034	2522	2512	103	49	54	0.88 (0.60–1.29)	–	Men only
			4563	2293	2270	51	18	33	0.52 (0.29–0.92)§	–	In men with initial PSA level < 3.0 $\mu$ g/L
			292	149	143	50	31	19	1.54 (0.87–2.72)	–	In men with initial PSA level $\geq$ 3.0 $\mu$ g/L

\* – = not reported; PSA = prostate-specific antigen; SU.VI.MAX = SUplémentation en Vitamines et Minéraux AntioXydants.

† Unless otherwise specified, comparisons were made between groups receiving the combination of the listed nutrients and the groups receiving combinations of placebo or nutrients other than the nutrients listed.

‡ The total number is presented (when available) if the number in each comparison group was not reported.

§ *P* < 0.01.