**Supplemental Table 1** Associations between dietary, supplemental and total intakes of antioxidants and colorectal cancer risk, from multivariable Cox proportional hazards modelsa, NutriNet-Santé Cohort (n=38 812), France, 2009-2016

|  |  |  |  |
| --- | --- | --- | --- |
|  | Dietary intake | Supplemental intake | Total intake |
|  |  | cases/non cases | HR | 95%CI | P-trend |  | cases/non cases | HR | 95%CI | P-trend |  | cases/non cases | HR | 95%CI | P-trend |
| Vitamin C | Continuousb | 120/38,658 | 0.98 | [0.95-1.02] | 0.3 | Users vs non-users | 17/5852 | 0.92 | [0.55-1.55] | 0.8 | Continuous | 120/38,658 | 0.98 | [0.95-1.00] | 0.09 |
|  | Q1c | 30/9617 | 1 | (ref) | 0.09 | Non-users | 103/32,806 | 1 | (ref) | 0.2 | Q1 | 28/9614 | 1 | (ref) | 0.06 |
|  | Q2 | 37/9660 | 1.10 | [0.68-1.80] |  | T1 | 10/1875 | 1.81 | [0.94-3.48] |  | Q2 | 39/9654 | 1.26 | [0.77-2.07] |  |
|  | Q3 | 30/9682 | 0.86 | [0.51-1.45] |  | T2 | 4/2001 | 0.64 | [0.24-1.75] |  | Q3 | 33/9678 | 1.02 | [0.61-1.71] |  |
|  | Q4 | 23/9699 | 0.66 | [0.38-1.16] |  | T3 | 3/1976 | 0.45 | [0.14-1.41] |  | Q4 | 20/9712 | 0.60 | [0.33-1.09] |  |
| Vitamin E | Continuous | 120/38,629 | 0.94 | [0.89-0.99] | 0.03 | Users vs non-users | 14/4993 | 0.90 | [0.51-1.59] | 0.7 | Continuous | 120/38,629 | 0.97 | [0.93-1.01] | 0.1 |
|  | Q1 | 41/9613 | 1 | (ref) | 0.003 | Non-users | 106/33,636 | 1 | (ref) | 0.6 | Q1 | 40/9607 | 1 | (ref) | 0.002 |
|  | Q2 | 32/9647 | 0.71 | [0.44-1.14] |  | T1 | 5/1618 | 1.07 | [0.44-2.64] |  | Q2 | 36/9647 | 0.81 | [0.51-1.30] |  |
|  | Q3 | 26/9683 | 0.54 | [0.32-0.92] |  | T2 | 5/1740 | 0.94 | [0.38-2.31] |  | Q3 | 22/9679 | 0.47 | [0.27-0.82] |  |
|  | Q4 | 21/9686 | 0.42 | [0.23-0.77] |  | T3 | 4/1635 | 0.72 | [0.27-1.98] |  | Q4 | 22/9696 | 0.44 | [0.24-0.80] |  |
| Beta-carotene | Continuous | 120/38,688 | 1.00 | [1.00-1.00] | 0.2 | Users vs non-users | 5/1338 | 1.30 | [0.53-3.19] | 0.6 | Continuous | 120/38,688 | 1.00 | [1.00-1.00] | 0.2 |
|  | Q1 | 30/9620 | 1 | (ref) | 0.07 | Non-users | 115/37,350 | 1 | (ref) | 0.5 | Q1 | 30/9620 | 1 | (ref) | 0.09 |
|  | Q2 | 38/9682 | 1.17 | [0.72-1.90] |  | T1 | 2/446 | 1.66 | [0.41-6.72] |  | Q2 | 37/9681 | 1.13 | [0.70-1.84] |  |
|  | Q3 | 31/9693 | 0.91 | [0.55-1.52] |  | T2 | 0/445 | 0 | [0-.] |  | Q3 | 31/9693 | 0.91 | [0.55-1.52] |  |
|  | Q4 | 21/9693 | 0.62 | [0.35-1.10] |  | T3 | 3/447 | 2.14 | [0.68-6.74] |  | Q4 | 22/9694 | 0.65 | [0.37-1.14] |  |
| Selenium | Continuous | 120/38,660 | 0.94 | [0.86-1.03] | 0.2 | Users vs non-users | 8/3282 | 0.76 | [0.37-1.56] | 0.4 | Continuous | 120/38,660 | 0.93 | [0.86-1.02] | 0.1 |
|  | Q1 | 38/9634 | 1 | (ref) | 0.6 | Non-users | 112/35,378 | 1 | (ref) | 0.5 | Q1 | 36/9635 | 1 | (ref) | 0.5 |
|  | Q2 | 22/9680 | 0.59 | [0.35-1.01] |  | T1 | 3/1068 | 0.95 | [0.30-2.99] |  | Q2 | 25/9674 | 0.71 | [0.42-1.20] |  |
|  | Q3 | 34/9669 | 0.93 | [0.57-1.52] |  | T2 | 1/1175 | 0.27 | [0.04-1.93] |  | Q3 | 35/9669 | 1.01 | [0.62-1.65] |  |
|  | Q4 | 26/9677 | 0.75 | [0.44-1.30] |  | T3 | 4/1039 | 1.08 | [0.40-2.95] |  | Q4 | 24/9682 | 0.71 | [0.41-1.25] |  |

Q, quartile; T, tertiles (tertiles of supplemental intake in users of the corresponding supplement)

a Models were adjusted for age (time-scale), sex, BMI (kg/m², continuous), height (cm, continuous), physical activity (high, moderate, low), smoking status (never smokers, former smokers, smokers), number of cigarette packs per year (continuous), numbers of dietary records (continuous), alcohol intake (g/d, continuous), energy intake (without alcohol, g/d, continuous), family history of cancer (yes/no) and educational level (<high-school degree, <2 years after high-school degree, ≥2 years after high-school degree).

b Increments for continuous variables were 1 mg/d for vitamin E, 10 mg/d for vitamin C, beta-carotene and 10 µg/d for selenium.

c Cut-offs for sex-specific quartiles of dietary intakes were 72.8/104.9/143.6 mg/d for vitamin C, 8.4/10.6/13.5 mg/d for vitamin E, 2084.0/3126.5/4568.7 mg/d for beta carotene, and 52.2/64.2/78.6 µg/d for selenium for women, and 76.9/112.8/156.5 mg/d for vitamin C, 9.4/12.1/15.4 mg/d for vitamin E, 2079.0/3168.2/4677.7 mg/d for beta carotene, and 61.3/75.0/92.5 µg/d for selenium for men. Cut-offs for sex-specific tertiles of supplemental intakes in users of the corresponding supplement were 8.8/32.9 mg/d for vitamin C, 0.9/3.0 mg/d for vitamin E, 339.0/1052.1 mg/d for beta carotene, and 3.4/9.9 µg/d for selenium for women, and 9.9/41.1 mg/d for vitamin C, 0.8/3.3 mg/d for vitamin E, 328.8/1183.6 mg/d for beta carotene, and 2.9/12.3 µg/d for selenium for men. Cut-offs for sex-specific quartiles of total intakes were 75.7/109.1/151.1 mg/d for vitamin C, 8.5/10.9/14.0 mg/d for vitamin E, 2105.2/3154.9/4623.4 mg/d for beta carotene and 52.7/65.0/80.0 µg/d for selenium for women, and 78.9/115.5/162.0 mg/d for vitamin C, 9.5/12.3/15.8 mg/d for vitamin E, 2088.5/3184.7/4713.2 mg/d for beta carotene and 61.6/75.5/93.4 µg/d for selenium for men.