**Supplementary Table 2.** Baseline characteristics of study participants according to quintile of omega-6 fat intake in the Nurses’ Health Study and Health Professionals Follow-up Study

|  |  |
| --- | --- |
|  | **Quintile of omega-6 fat intake (% of energy intake)** |
|  | **Q1** | **Q2** | **Q3** | **Q4**  | **Q5** |
| **NHS (women, 1984)**  |  |  |  |  |  |
| Omega-6 fat intake (% of energy intake), mean (SD) | 3.6 (0.5) | 4.8 (0.3) | 5.6 (0.2) | 6.5 (0.3) | 8.4 (1.4) |
| Number of participants | 15,062 | 15,062 | 15,063 | 15,062 | 15,062 |
| Age, years, mean (SD) | 51.6 (7.0) | 50.6 (7.2) | 50.0 (7.2) | 49.8 (7.2) | 49.8 (7.2) |
| Family history of melanoma, % | 2.4 | 2.5 | 2.8 | 2.7 | 2.4 |
| Red/blonde hair, % | 15.8 | 15.8 | 15.6 | 15.7 | 15.8 |
| Painful burn/blisters reaction as a child/adolescent, % | 34.7 | 34.3 | 34.1 | 34.5 | 34.4 |
| 6+ of Blistering sunburns, %  | 6.8 | 7.3 | 7.0 | 7.9 | 7.5 |
| 6+ of moles, %  | 4.1 | 4.6 | 4.6 | 4.9 | 5.0 |
| Body mass index (kg/m2), mean (SD) | 24.6 (4.6) | 24.9 (4.7) | 25.1 (4.8) | 25.1 (4.7) | 25.4 (4.9) |
| Physical activity level (MET hrs/wk), mean (SD) | 15.6 (23.0) | 14.7 (21.4) | 13.9 (20.4) | 13.6 (20.5) | 12.8 (18.8) |
| Alcohol intake (g/d), mean (SD) | 9.3 (14.6) | 7.3 (11.5) | 6.7 (10.5) | 6.1 (9.8) | 5.3 (8.8) |
| Smoking, % | 27.4 | 24.0 | 23.8 | 23.3 | 23.9 |
| Menopause status, % | 58.4 | 58.3 | 58.2 | 58.3 | 58.3 |
| Postmenopausal hormones use in postmenopausal women, % | 22.2 | 23.8 | 23.7 | 24.0 | 24.3 |
| Total citrus intake (serving/d), mean (SD) | 1.0 (0.9) | 0.9 (0.8) | 0.9 (0.7) | 0.8 (0.7) | 0.7 (0.6) |
| Caffeine intake (mg/d), mean (SD) | 307.1 (228.7) | 314.2 (228.1) | 320.9 (232.4) | 333.3 (235.3) | 339.5 (244.4) |
| Total energy intake (kcal/d), mean (SD) | 1694.4 (526.2) | 1739.3 (526.1) | 1773.9 (527.8) | 1790.2 (531.3) | 1724.1 (532.3) |
| **HPFS (men, 1986)**  |  |  |  |  |  |
| Omega-6 fat intake (% of energy intake), mean (SD) | 3.3 (0.5) | 4.3 (0.2) | 5.0 (0.2) | 5.9 (0.3) | 7.6 (1.3) |
| Number of participants | 9,703 | 9,703 | 9,704 | 9,703 | 9,703 |
| Age, years, mean (SD) | 55.8 (10.0) | 54.4 (9.9) | 53.8 (9.8) | 53.4 (9.8) | 54.0 (9.6) |
| Family history of melanoma, % | 2.6 | 3.2 | 2.6 | 3.4 | 3.4 |
| Red/blonde hair, % | 13.7 | 13.9 | 14.2 | 13.8 | 14.2 |
| Painful burn/blisters reaction as a child/adolescent, % | 52.2 | 54.2 | 55.1 | 56.2 | 56.5 |
| 6+ of Blistering sunburns, %  | 12.4 | 13.2 | 13.5 | 14.9 | 14.5 |
| 6+ of moles, %  | 5.4 | 5.3 | 5.0 | 6.0 | 5.2 |
| Body mass index (kg/m2), mean (SD) | 24.9 (4.9) | 24.9 (5.1) | 25.0 (5.1) | 24.9 (5.1) | 25.0 (5.0) |
| Physical activity level (MET hrs/wk), mean (SD) | 23.3 (31.4) | 21.4 (29.6) | 20.8 (31.5) | 20.3 (29.4) | 19.0 (25.4) |
| Alcohol intake (g/d), mean (SD) | 15.9 (21.1) | 12.8 (16.5) | 11.5 (14.9) | 10.5 (13.8) | 8.9 (12.7) |
| Current smoking, % | 11.0 | 9.8 | 9.9 | 9.8 | 9.6 |
| Total citrus intake (serving/d), mean (SD) | 1.2 (1.1) | 1.0 (0.9) | 0.9 (0.8) | 0.9 (0.8) | 0.8 (0.8) |
| Caffeine intake (mg/d), mean (SD) | 217.9 (226.2) | 228.6 (223.9) | 231.4 (224.6) | 230.1 (226.3) | 233.8 (235.1) |
| Total energy intake (kcal/d), mean (SD) | 1937.9 (615.5) | 1962.8 (606.7) | 2005.6 (610.7) | 2016.2 (611.7) | 2027.8 (637.9) |

Values are means (Standard Deviation, SD) or percentages and are standardized to the age distribution of the study population except for age and number of participants.

NHS, Nurses’ Health Study; HPFS, Health Professionals Follow-up Study; MET, metabolic-equivalents