**Supplemental Materials**

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| eTable 1. Minimum number of average metabolic equivalents (METs) per week required to be classified as physically active at baseline and in adolescence for a given age at baseline |
|   | **Baseline** |   | **Adolescence** |
| Age at Baseline (Years) |  | Conversion of METs to hours per week of |  |  | Conversion of METs to hours per week of |
| METs | Moderate | Strenuous |   | METs | Moderate | Strenuous |
| 18 | 10.75 | 2.69 | 1.54 |  | 22 | 5.50 | 3.14 |
| 20 | 8.75 | 2.19 | 1.25 |  | 22 | 5.50 | 3.14 |
| 30 | 7.5 | 1.88 | 1.07 |  | 18 | 4.50 | 2.57 |
| 40 | 5.5 | 1.38 | 0.79 |  | 15.5 | 3.88 | 2.21 |
| 50 | 4 | 1.00 | 0.57 |  | 13.75 | 3.44 | 1.96 |
| 60 | 3.5 | 0.88 | 0.50 |  | 11 | 2.75 | 1.57 |
| 70 | 4 | 1.00 | 0.57 |  | 11 | 2.75 | 1.57 |
| 79 | 2 | 0.50 | 0.29 |   | 8 | 2.00 | 1.14 |

eTable 2. Association of baseline and adolescent strenuous and moderate recreational physical activity with breast cancer risk in the Prospective Family Study Cohort (N=15,500)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | None | 0.5 to 2 hours per week | 2 to 3 hours per week | ≥ 4 hours per week | p-trend | Any vs. None per week |
| *Baseline Recreational Physical Activity* |  |  |  |  |  |
| Strenuous activity | 1.00 (ref.) | 0.90 (0.73, 1.11) | 0.78 (0.63, 0.96) | 0.92 (0.75, 1.14) | 0.14 | 0.86 (0.74, 1.00) |
| Moderate activity | 1.00 (ref.) | 0.74 (0.59, 0.91) | 0.75 (0.62, 0.91) | 0.81 (0.67, 0.97) | 0.11 | 0.77 (0.65, 0.91) |
| *Adolescent Recreational Physical Activitya* |  |  |  |  |  |
| Strenuous activity | 1.00 (ref.) | 0.84 (0.66, 1.07) | 0.94 (0.76, 1.16) | 1.04 (0.86, 1.26) | 0.37 | 0.97 (0.82, 1.16) |
| Moderate activity | 1.00 (ref.) | 0.98 (0.76, 1.28) | 0.87 (0.70, 1.09) | 1.01 (0.83, 1.24) | 0.79 | 0.96 (0.80, 1.17) |
| Notes: Models adjusted for race and ethnicity; study center; baseline age; lifetime breast cancer risk; education; parity and breastfeeding; use of alcohol, cigarettes, hormonal birth control and menopausal hormone therapy; and body mass index; models stratified by birth cohort.  |
| aN=14,619 (cases=852) because 931 participants missing data on recreational physical activity during adolescence. |