**Table S1. Nutrient intakes in low and high E-DII groups**

|  |  |  |  |
| --- | --- | --- | --- |
| **Nutrients** | **Low E-DII** | **High E-DII** | **P-value** |
| Energy(kj) | 8223.41±2272.73 | 9148.38±2680.71 | <.0001 |
| Alcohol(g) | 7.37±8.58 | 9.02±10.97 | <.0001 |
| Vitamin B12(ug) | 3.39±1.75 | 2.77±1.43 | <.0001 |
| Vitamin B6(mg) | 1.14±0.26 | 0.91±0.25 | <.0001 |
| Vitamin C(mg) | 83.17±40.75 | 45.40±28.80 | <.0001 |
| Vitamin D(ug) | 2.11±1.67 | 1.50±1.11 | <.0001 |
| Vitamin E(mg) | 5.80±1.54 | 4.81±1.51 | <.0001 |
| Vitamin A retinol equivalents (ug) | 588.61±526.00 | 360.18±439.27 | <.0001 |
| Beta carotene(ug) | 1935.46±1464.83 | 708.13±630.56 | <.0001 |
| Carbohydrate(g) | 126.44±20.25 | 120.75±21.02 | <.0001 |
| Cholesterol(mg) | 119.72±76.92 | 121.66±73.32 | <.0001 |
| Total fat(g) | 33.38±6.96 | 36.46±7.53 | <.0001 |
| Fiber(g) | 10.45±2.65 | 7.13±1.91 | <.0001 |
| Iron(mg) | 6.59±1.22 | 5.54±1.77 | <.0001 |
| Magnesium(mg) | 181.42±27.57 | 147.19±111.97 | <.0001 |
| Niacin(mg) | 20.15±4.43 | 17.56±10.44 | <.0001 |
| Zinc(mg) | 5.04±1.18 | 4.53±1.38 | <.0001 |
| Omega 3(g) | 1.08±0.48 | 0.85±0.34 | <.0001 |
| Omega 6(g) | 5.46±1.84 | 5.02±1.73 | <.0001 |
| Protein(g) | 41.99±8.83 | 37.76±8.69 | <.0001 |
| MUFA(g) | 12.22±3.09 | 13.09±3.17 | <.0001 |
| Riboflavin(mg) | 1.01 ±0.28 | 0.88±0.28 | <.0001 |
| Saturated fat(g) | 11.50±3.09 | 14.23±3.74 | <.0001 |
| Selenium(ug) | 28.75±12.74 | 23.32±10.09 | <.0001 |
| Thiamin(mg) | 1.03±0.30 | 0.79±0.25 | <.0001 |
| Trans fatty acids(g) | 0.51±0.24 | 0.63±0.28 | <.0001 |
| Tea(g) | 248.27±201.27 | 188.78±434.13 | <.0001 |

**Table S2. Associations between continuous E-DII score and incident depression**

|  |  |  |
| --- | --- | --- |
|  | **OR (95% CI)** | **P-value** |
| Model 0 (crude model) | 1.065 (1.047-1.083) | <.0001 |
| Model 1 | 1.085 (1.066-1.104) | <.0001 |
| Model 2 | 1.072 (1.054-1.091) | <.0001 |
| Model 3 | 1.046 (1.028-1.064) | <.0001 |
| Model 4 | 1.047 (1.029-1.065) | <.0001 |

Model 0: crude model

Mode 1: adjusted for age (continuous), sex(categorical)

Mode 2: adjusted for age (continuous), sex(categorical), deprivation index (continuous), ethnicity (categorical), education(categorical)

Model 3: adjusted for age(continuous), sex(categorical), ethnicity (categorical), education(categorical), deprivation index (continuous), BMI (continuous), smoking status (categorical), alcohol status(categorical), time watching TV (continuous), and physical activity(categorical)

Model 4: as per model 3 and also for type 2 diabetes (categorical) and hypertension(categorical)

A p-value below 0.05 was considered statistically significant.

**Table S3.** Associations between E-DII and incident depression stratified by covariates

|  |  |  |  |
| --- | --- | --- | --- |
| **Subgroup** |  | **OR (95% CI)**  | **P-value** |
| **Sex** |  |  |  |
|  Female | 68691 | 1.162 (1.077-1.254) | 0.0001 |
|  Male  | 64217 | 1.097 (0.995-1.209) | 0.0635  |
| **Age**  |  |  |  |
|  <60 | 7889 | 1.106 (1.024-1.193) | 0.0101 |
| >=60 | 54011 | 1.129 (1.025-1.244)  | 0.0136 |
| **BMI** |  |  |  |
| <25 | 48685 | 1.198 (1.077-1.334) | 0.0009 |
| >=25 | 84223 | 1.076 (1.001-1.156) | 0.0483 |
| **Ethic** |  |  |  |
|  White | 127317 | 1.115 (1.049-1.185) | 0.0005  |
|  Non-white | 5591 | 1.157 (0.852-1.571) | 0.3509 |
| **Multiple Deprivation** |  |  |  |
|  Less deprived | 66477 | 1.054 (0.963-1.154) | 0.2551 |
|  More deprived | 66431 | 1.161 (1.072-1.258) | 0.0003 |
| **Education** |  |  |  |
|  Low | 36490 | 1.122 (1.009-1.248) | 0.0339 |
|  Intermediate | 39195 | 1.178 (1.058-1.312) | 0.0027  |
|  High | 57223 | 1.054 (0.955-1.164) | 0.2922 |
| **MET minutes per week** |  |  |  |
|  Low | 43898 | 1.050 (0.951-1.158) | 0.3355 |
|  Intermediate | 47456 | 1.072 (0.965-1.191)  | 0.1942  |
|  High | 41554 | 1.244 (1.116-1.386) | <.0001  |
| **Watching TV** |  |  |  |
|  Less TV | 69523 | 1.169 (1.070-1.276) | 0.0005 |
|  More TV | 63385 | 1.066 (0.982-1.157) | 0.1263 |
| **Smoking** |  |  |  |
|  Never | 75106 | 1.090 (1.000-1.187) | 0.0488 |
|  Previous/Current | 57802 | 1.136 (1.044-1.235) | 0.0031  |
| **Alcohol** |  |  |  |
|  Never | 3944 | 1.121 (0.816-1.538) | 0.4812 |
|  Previous/Current | 128964 | 1.116 (1.050-1.187) | 0.0004 |
| **History of type 2 diabetes** |  |  |  |
|  No | 130316 | 1.120 (1.054-1.190) | 0.0003 |
|  Yes | 2592 | 1.016 (0.740-1.396) | 0.9201 |
| **History of hypertension** |  |  |  |
|  No | 100625 | 1.116 (1.039-1.199) | 0.0026 |
| Yes | 32283 | 1.118 (1.002-1.248) | 0.0454 |