Supplemental Tables

**Supplemental Table S1.** Calculation method of the alternate Mediterranean diet score (aMDS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Food included** | **Criteria for 1 point** | |
| **Females** | **Males** |
| Vegetables | All vegetables except potatoes | > 3.31 servings/d | > 3.13 servings/d |
| Legumes | Tofu, soya beans, soya bean milk, carob gum | > 0.29 servings/d | > 0.30 servings/d |
| Fruits | All fruit and juices | >1.48 servings/d | >1.14 servings/d |
| Nuts | Peanut, cashew nut | > 0.07 servings/d | > 0.07 servings/d |
| Whole grains | Whole-grain bread, starchy food | > 0.23 servings/d | > 0.21 servings/d |
| Red & processed meats | pork, beef, mutton, guts, sausage | <1.30 servings/d | <1.61 servings/d |
| Fish | Fish, shrimp, squid, crab, | > 0.83 servings/d | > 0.87 servings/d |
| Ratio of monounsaturated to saturated fat | MFA, SFA | > 1.42 servings/d | > 1.43 servings/d |
| Ethanol | Wine, beer, liquor | =5-15g/d | =15-25g/d |

**Supplemental Table S2.** The ability of the individual components of the Mediterranean diet to discriminate SMIs from quartile 4 to quartile 1.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Females | | Males | |
|  | Wilks’ lamda | P | Wilks’ lamda | P |
| **Total body SMI** |  |  |  |  |
| Vegetables | 0.998 | 0.123 | 0.982 | **0.002** |
| Legumes | 1.000 | 0.863 | 0.988 | **0.012** |
| Fruits | 0.995 | **0.019** | 0.987 | **0.010** |
| Nuts | 0.998 | 0.184 | 0.987 | **0.008** |
| Whole grains | 0.999 | 0.359 | 0.999 | 0.556 |
| Red & processed meats | 1.000 | 0.838 | 1.000 | 0.784 |
| Fish | 1.000 | 0.794 | 0.996 | 0.145 |
| Ratio of monounsaturated to saturated fat | 0.988 | **0.000** | 0.995 | 0.118 |
| Ethanol | 0.998 | **0.011** | 1.000 | 0.615 |
| **Limbs SMI** |  |  |  |  |
| Vegetables | 0.997 | 0.075 | 0.988 | **0.012** |
| Legumes | 1.000 | 0.684 | 0.999 | 0.402 |
| Fruits | 0.993 | **0.005** | 0.990 | **0.024** |
| Nuts | 0.998 | 0.179 | 0.997 | 0.189 |
| Whole grains | 0.998 | 0.117 | 0.999 | 0.479 |
| Red & processed meats | 1.000 | 0.858 | 1.000 | 0.886 |
| Fish | 0.999 | 0.423 | 0.995 | 0.095 |
| Ratio of monounsaturated to saturated fat | 0.997 | 0.063 | 1.000 | 0.854 |
| Ethanol | 0.994 | **0.011** | 0.998 | 0.373 |
| **Arms SMI** |  |  |  |  |
| Vegetables | 0.999 | 0.259 | 0.988 | **0.011** |
| Legumes | 0.999 | 0.454 | 0.995 | 0.102 |
| Fruits | 0.996 | **0.031** | 0.988 | **0.013** |
| Nuts | 1.000 | 0.718 | 1.000 | 0.666 |
| Whole grains | 0.999 | 0.234 | 0.999 | 0.608 |
| Red & processed meats | 0.999 | 0.201 | 1.000 | 0.639 |
| Fish | 1.000 | 0.593 | 0.996 | 0.165 |
| Ratio of monounsaturated to saturated fat | 0.995 | **0.014** | 0.989 | **0.017** |
| Ethanol | 0.997 | 0.096 | 0.999 | 0.534 |
| **Legs SMI** |  |  |  |  |
| Vegetables | 0.998 | 0.150 | 0.996 | 0.167 |
| Legumes | 1.000 | 0.941 | 1.000 | 0.659 |
| Fruits | 0.991 | **0.002** | 0.992 | **0.040** |
| Nuts | 0.998 | 0.116 | 0.993 | 0.059 |
| Whole grains | 0.994 | 0.011 | 0.999 | 0.393 |
| Red & processed meats | 1.000 | 0.970 | 0.999 | 0.541 |
| Fish | 0.999 | 0.387 | 0.997 | 0.204 |
| Ratio of monounsaturated to saturated fat | 0.997 | 0.074 | 1.000 | 0.934 |
| Ethanol | 0.995 | **0.026** | 1.000 | 0.958 |

**Supplemental Table S3.** Sex- specified liner regression analysis between aMDS and muscle mass.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Males | |  | Females | | | |
|  | β | SE | p | β | SE | | p |
| ***Model 1****g****,*** *SMI, kg/m2* | | | | | | | |
| Total body | 0.088 | 0.478 | **0.003** | 0.049 | | 0.019 | **0.009** |
| Limbs | 0.033 | 0.014 | **0.020** | 0.018 | | 0.009 | **0.045** |
| Arms | 0.010 | 0.004 | **0.011** | 0.002 | | 0.002 | 0.302 |
| Legs | 0.023 | 0.011 | **0.036** | 0.016 | | 0.007 | **0.029** |
| ***Model 2****h* ***,*** *SMI, kg/m2* | | | | | | | |
| Total body | 0.100 | 0.662 | ***<0.001*** | 0.064 | | 0.521 | ***<0.001*** |
| Limbs | 0.040 | 0.015 | **0.008** | 0.024 | | 0.009 | **0.009** |
| Arms | 0.012 | 0.004 | **0.005** | 0.004 | | 0.002 | 0.091 |
| Legs | 0.028 | 0.011 | **0.014** | 0.020 | | 0.007 | **0.006** |

*g*: Model 1: controlled for age and physical activity;

*h*: Model 2: age, physical activity, smoking status, passive smoking status, daily energy intake, and dietary protein intake, and years since menopause and oral estrogen (in females only) based on theoretical relevance and significance in univariate analysis (p<0.2).

**Supplemental Table S4.** The interactions of aMDS and some covariables on SMI.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | P-interaction | | | | | |
|  | Sex | Smoking status | Passive smoking status | Physical activity | Energy intake | Protein intake |
| Total-SMI | 0.136 | 0.236 | 0.525 | 0.201 | 0.676 | 0.122 |
| Appendicular SMI | 0.185 | 0.398 | 0.633 | 0.185 | 0.641 | 0.155 |
| Arms SMI | 0.036 | 0.606 | 0.761 | 0.253 | 0.982 | 0.092 |
| Legs SMI | 0.326 | 0.725 | 0.536 | 0.184 | 0.517 | 0.225 |

All analyses were controlled for age, sex, physical activity, smoking status, passive smoking status, daily energy intake, and dietary protein intake except for the one analyzed.

**Supplemental Table S5.** Comparisons of participants’ baseline characteristics between subjects followed-up and lost-to-follow-up.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Followed-up  (n=2520) | Lost-to-follow-up  (n=649) | *p-*value |
| Mean ± SD, n(%) | Mean ± SD, n(%) |
| , y | 57.45±5.00 | 57.78±5.67 | 0.162 |
| Body mass index, kg/m2 | 23.20±3.09 | 23.46±3.44 | 0.069 |
| Energy, kcal/d | 1859.9±612.3 | 11839.3±602.8 | 0.419 |
| Smoker, N (%) | 345(13.69) | 122(18.80) | 0.147 |
| Female, N (%) | 1711(67.90) | 531(81.82) | 0.684 |
| Passive smoking, N (%) | 675(26.79) | 233(35.90) | 0.071 |
| Years since menopause, year | 7.82±5.25 | 8.82±6.16 | **0.003** |
| Estrogen use | 89(5.20) | 21(3.95) | 0.426 |
| ，MET h/d | 16.37±4.19 | 15.72±4.53 | ***<0.001*** |
| Multivitamin regular use, N (%) | 543(21.55) | 136(20.96) | 0.684 |
| Household income, yuan/person/month |  |  | ***<0.001*** |
| <2000 | 730 | 258 |  |
| 2000-3000 | 1117 | 268 |  |
| >3000 | 457 | 116 |  |
| Education |  |  | ***<0.001*** |
| Secondary school or below | 665 | 251 |  |
| High school | 1148 | 265 |  |
| College or above | 574 | 124 |  |

i: calculated by the time of baseline interview.