**Supplementary data**

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| Table S1 The baseline distribution of nutrients by tertiles of each dietary pattern | | | | | | | | | |
|  | Meat-fat pattern | | | Healthy pattern | | | Dairy-bread pattern | | |
|  | T1 | T2 | T3 | T1 | T2 | T3 | T1 | T2 | T3 |
| Protein, g | 55.6±18.8 | 68.0±18.3 | 95.9±29.4 | 57.9±21.7 | 70.0±21.7 | 91.6±29.6 | 76.9±31.4 | 70.5±26.5 | 72.2±26.4 |
| Fat, g | 36.3±13.10 | 49.2±12.3 | 75.1±22.8 | 44.5±19.7 | 50.9±19.4 | 65.2±25.2 | 51.4±25.7 | 51.6±21.4 | 57.7±21.9 |
| Carbohydrates, g | 212.6±62.1 | 249.2±68.0 | 313.6±90.4 | 228.6±76.5 | 250.6±76.7 | 296.2±88.2 | 279.5±95.5 | 247.7±82.3 | 248.4±73.2 |
| Fiber, g | 12.4±5.6 | 13.5±5.0 | 17.4±6.2 | 10.0±3.5 | 13.5±3.6 | 19.7±5.9 | 14.3±6.3 | 14.0±5.6 | 15.0±6.2 |
| Calcium, mg | 477.5±258.8 | 522.9±236.9 | 660.2±285.9 | 404.4±179.2 | 549.4±200.5 | 762.7±281.2 | 483.8±270.6 | 548.9±255.9 | 621.4±277.5 |
| Iron, mg | 7.9±3.4 | 9.2±3.1 | 12.6±4.3 | 7.2±2.7 | 9.6±2.7 | 13.2±4.1 | 10.1±4.6 | 9.5±3.8 | 9.7±4.0 |
| Potassium, mg | 2274.9±1042.1 | 2518.8±937.2 | 3322.3±1200.9 | 1952.5±689.2 | 2645.3±709.5 | 3737.2±1122.1 | 2597.6±1225.9 | 2621.0±1081.7 | 2827.1±1155.1 |
| Vitamin A, IU | 1819.7±1312.8 | 2251.2±1232.5 | 3188.6±1916.1 | 1759.3±1558.9 | 2321.7±1235.3 | 3243.9±1685.5 | 2144.1±1948.5 | 2330.0±1461.9 | 2642.9±1434.6 |
| Vitamin D, IU | 206.4±232.4 | 253.9±214.6 | 369.7±353.4 | 194.4±178.0 | 269.1±245.1 | 391.0±350.4 | 293.4±313.6 | 266.3±284.7 | 250.7±258.4 |
| Vitamin C, mg | 112.6±87.6 | 119.8±76.0 | 155.1±88.2 | 79.1±46.4 | 127.2±53.3 | 204.3±92.8 | 116.3±86.4 | 125.0±79.5 | 142.6±89.1 |
| Saturated fat, g | 10.1±4.7 | 13.4±4.3 | 19.3±6.7 | 11.9±5.8 | 13.3±6.0 | 16.6±7.2 | 12.0±6.8 | 13.6±6.2 | 16.0±6.6 |
| Monounsaturated fat, g | 11.5±4.5 | 16.7±4.2 | 25.1±8.4 | 14.8±7.6 | 16.9±7.3 | 20.9±9.5 | 16.0±9.6 | 16.7±7.9 | 18.8±8.1 |
| Polyunsaturated fat, g | 9.2±3.4 | 12.3±3.4 | 17.9±5.8 | 10.6±4.7 | 12.6±4.7 | 16.0±6.5 | 12.8±6.6 | 12.3±5.4 | 13.6±5.5 |
| Cholesterol, mg | 175.2±113.1 | 263.9±126.1 | 414.3±174.6 | 216.6±163.3 | 273.6±149.6 | 352.9±167.9 | 251.9±159.3 | 273.4±161.0 | 311.3±178.2 |
| Vitamin E, mg | 6.1±6.5 | 7.5±2.5 | 10.6±3.6 | 6.3±2.5 | 7.8±2.6 | 10.6±3.7 | 7.8±3.9 | 7.8±3.3 | 8.5±3.5 |
| Magnesium, mg | 226.4±85.9 | 252.8±81.4 | 327.8±107.0 | 204.3±64.2 | 263.2±65.2 | 352.5±99.5 | 280.8±110.0 | 260.2±96.2 | 263.1±99.3 |
| The data was shown in median ± standard deviation. | | | | | | | | | |

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| Table S2 Additive effect of smoking status and dietary patterns on all-cause mortality | | | | | | |
|  | Never smokers | | Smokers (<20 pack-year) | | Heavy smokers (>=20 pack-year) | |
|  | Cases/ Person-year | HR (95% CI)※ | Cases/ Person-year | HR (95% CI)※ | Cases/ Person-year | HR (95% CI)※ |
| Meat & fat pattern | |  |  |  |  |  |
| Tertile 1 | 16/5945 | 0.39(0.20,0.77)\* | 11/1521 | 0.78(0.38, 1.60) | 39/2911 | 1.13(0.68, 1.87) |
| Tertile 2 | 26/5877 | 0.62(0.35, 1.12) | 18/1582 | 1.01(0.57, 1.79) | 39/2808 | 1.14(0.72, 1.81) |
| Tertile 3 | 39/5730 | 0.89(0.53, 1.50) | 19/1444 | 1.02(0.59, 1.76) | 43/3176 | 1.00 |
| Healthy pattern | |  |  |  |  |  |
| Tertile 1 | 34/5454 | 0.70(0.41, 1.18) | 18/1532 | 0.95(0.55, 1.65) | 48/3277 | 1.00 |
| Tertile 2 | 23/5903 | 0.44(0.25, 0.79)\* | 17/1549 | 0.71(0.41, 1.25) | 29/3129 | 0.56(0.35, 0.90)\* |
| Tertile 3 | 24/6194 | 0.38(0.22, 0.67)\* | 13/1467 | 0.57(0.30, 1.08) | 44/2489 | 0.97(0.63, 1.49) |
| Dairy & bread pattern | |  |  |  |  |  |
| Tertile 1 | 17/5595 | 0.30(0.15, 0.58)\* | 18/1529 | 0.80(0.44, 1.43) | 54/3299 | 0.99(0.63, 1.54) |
| Tertile 2 | 30/5859 | 0.58(0.33,1.01) | 12/1474 | 0.58(0.30, 1.13) | 33/3019 | 0.71(0.43, 1.16) |
| Tertile 3 | 34/6098 | 0.67(0.39, 1.16) | 18/1545 | 1.01(0.56, 1.79) | 34/2577 | 1.00 |
| \* P< 0.05.  ※ Strata by gender, and multivariate adjustment for survey year, married status, working status, education, alcohol consumption, daily walking time, sleep duration, living arrangement, TMIG scores, GDS scores, social participation, BMI, daily energy intake, history of cancer, heart disease and cerebrovascular disease, and medical status of hypertension, hyperlipidemia and diabetes mellitus. | | | | | | |

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| Table S3 Associations between dietary patterns and all-cause mortality by drinking status | | | | |
|  | Occasional drinkers (Never/ <23g/day) | | Heavy drinkers (>=23g/day) | |
|  | Cases/ Person-year | HR (95% CI) ※ | Cases/ Person-year | HR (95% CI) ※ |
| Meat & fat pattern | | | | |
| Tertile 1 | 43/8319 | 0.82(0.46, 1.46) | 24/2150 | 1.03(0.56, 1.89) |
| Tertile 2 | 56/8311 | 1.00(0.59, 1.69) | 29/2058 | 1.24(0.72, 2.13) |
| Tertile 3 | 73/8342 | 1.12(0.71, 1.76) | 28/2031 | 1.00 |
| Healthy pattern | | | | |
| Tertile 1 | 71/8244 | 1.04(0.66, 1.64) | 29/2068 | 1.00 |
| Tertile 2 | 48/8435 | 0.67(0.41, 1.08) | 23/2208 | 0.67(0.38, 1.16) |
| Tertile 3 | 53/8293 | 0.72(0.44, 1.17) | 29/1963 | 0.93(0.54, 1.60) |
| Dairy & bread pattern | | | | |
| Tertile 1 | 48/7952 | 0.60(0.35, 1.02) | 42/2563 | 0.90(0.52, 1.55) |
| Tertile 2 | 57/8274 | 0.75(0.44, 1.26) | 18/2146 | 0.56(0.30, 1.06) |
| Tertile 3 | 67/8746 | 0.94(0.57, 1.57) | 21/1530 | 1.00 |
| \* P< 0.05.  ※Strata by gender, and multivariate adjustment for survey year, marital status, work status, education, tobacco use, daily walking time, sleep duration , living arrangement, TMIG scores, GDS scores, social participation, BMI, daily energy intake, history of cancer, heart disease and cerebrovascular disease, and medical status of hypertension, hyperlipidemia and diabetes mellitus. | | | | |

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| Table S4 Associations between dietary patterns and all-cause mortality by daily walking time | | | | |
|  | Walking ≥1 hours/day | | Walking < 1 hour/day | |
|  | Cases/ Person-year | HR (95% CI) ※ | Cases/ Person-year | HR (95% CI) ※ |
| Meat & fat pattern | | | | |
| Tertile 1 | 26/5966 | 0.50(0.29, 0.84)\* | 41/4444 | 0.91(0.57, 1.47) |
| Tertile 2 | 46/6048 | 0.79(0.52, 1.20) | 38/4284 | 0.84(0.53, 1.31) |
| Tertile 3 | 45/5805 | 0.68(0.46, 1.02) | 56/4699 | 1.00 |
| Healthy pattern | | | | |
| Tertile 1 | 51/5677 | 0.94(0.63, 1.40) | 49/4601 | 1.00 |
| Tertile 2 | 34/5871 | 0.58(0.37, 0.91)\* | 37/4714 | 0.68(0.44, 1.06) |
| Tertile 3 | 32/6271 | 0.47(0.29, 0.75)\* | 49/3912 | 1.05(0.69, 1.59) |
| Dairy & bread pattern | | | | |
| Tertile 1 | 37/6030 | 0.42(0.27, 0.66)\* | 53/4416 | 0.76(0.51, 1.13) |
| Tertile 2 | 42/5836 | 0.59(0.39, 0.90)\* | 32/4522 | 0.51(0.32, 0.80)\* |
| Tertile 3 | 38/5953 | 0.60(0.39, 0.91)\* | 50/4289 | 1.00 |
| \* P< 0.05.  ※Strata by gender, and multivariate adjustment for survey year, marital status, work status, education, tobacco use, alcohol consumption, sleep duration, living arrangement, TMIG scores, GDS scores, social participation, BMI, daily energy intake, history of cancer, heart disease and cerebrovascular disease, and medical status of hypertension, hyperlipidemia and diabetes mellitus. | | | | |