

Supplemental Table 1. List of fruit or vegetable related food items

| Fruit | Vegetable |
|----------------------------|---|
| Strawberry | Bean sprouts (seasoned, soup) |
| Melon | Seasoned mung bean sprout |
| Watermelon | Seasoned spinach |
| Peach | Seasoned bellflower (boiled or not) |
| Grape | Pumpkin (seasoned, pan-fried) |
| Apple | Other seasoned vegetables |
| Pear | Cucumber (seasoned, raw) |
| Persimmon, dried persimmon | Radish (seasoned, pickled, dried) |
| Tangerine | Vegetable salad |
| Banana | Seasoned green onion, and seasoned Chinese chives |
| Orange | Raw vegetables (lettuce, sesame, Chinese cabbage, and pumpkin leaf) |
| Kiwi | Green pepper |
| | Boiled broccoli, boiled cabbage |
| | Garlic |
| | Tomato, and cherry tomato |

The food frequency questionnaire consists of dietary consumption using a 9-point scale (less than once per month or never, once per month, 2–3 times per month, once per week, 2–4 times per week, 5–6 times per week, once per day, twice per day, and three times per day) and three levels to represent the amount consumed by referring to a standard amount (less, standard, and more).

Supplemental Table 2. Distribution of basic characteristics by fruit intake.

| | Fruit intake | | | | | | | | <i>p</i> _{trend} |
|---------------------------------|--------------|-------|------------|-------|-------------|-------|--------------|-------|---------------------------|
| | < 1 time/day | | 1 time/day | | 2 times/day | | 3+ times/day | | |
| | n | % | n | % | n | % | n | % | |
| Survey year | | | | | | | | | |
| 2013 | 961 | 29.61 | 935 | 28.8 | 629 | 19.38 | 721 | 22.21 | 0.03 |
| 2014 | 945 | 31.81 | 825 | 27.77 | 538 | 18.11 | 663 | 22.32 | |
| 2015 | 916 | 32.45 | 810 | 28.69 | 488 | 17.29 | 609 | 21.57 | |
| Sex | | | | | | | | | |
| Male | 1519 | 42.73 | 983 | 27.65 | 551 | 15.5 | 502 | 14.12 | <.0001 |
| Female | 1303 | 23.76 | 1587 | 28.93 | 1104 | 20.13 | 1491 | 27.18 | |
| Age (years) | 45.83 | 10.97 | 45.38 | 10.94 | 45.76 | 10.69 | 46.53 | 10.81 | 0.02 |
| Region | | | | | | | | | |
| Urban | 2280 | 30.62 | 2118 | 28.44 | 1389 | 18.65 | 1660 | 22.29 | <.01 |
| Rural | 542 | 34.02 | 452 | 28.37 | 266 | 16.7 | 333 | 20.9 | |
| Income level (quartiles) | | | | | | | | | |
| Q1 | 863 | 40.29 | 574 | 26.8 | 354 | 16.53 | 351 | 16.39 | <.0001 |
| Q2 | 827 | 36.38 | 634 | 27.89 | 359 | 15.79 | 453 | 19.93 | |
| Q3 | 612 | 26.9 | 702 | 30.86 | 435 | 19.12 | 526 | 23.12 | |
| Q4 | 510 | 22.02 | 649 | 28.02 | 500 | 21.59 | 657 | 28.37 | |
| Current smoking | | | | | | | | | |
| No | 1826 | 26.21 | 2030 | 29.14 | 1377 | 19.77 | 1733 | 24.88 | <.0001 |
| Yes | 833 | 50.24 | 431 | 26 | 210 | 12.67 | 184 | 11.1 | |

Supplemental Table 3. Distribution of basic characteristics by vegetable intake.

| | Vegetable intake | | | | | | | | <i>p</i> _{trend} |
|---------------------------------|------------------|-------|------------|-------|-------------|-------|--------------|-------|---------------------------|
| | < 1 time/day | | 1 time/day | | 2 times/day | | 3+ times/day | | |
| | n | % | n | % | n | % | n | % | |
| Survey year | | | | | | | | | |
| 2013 | 357 | 11 | 711 | 21.9 | 674 | 20.76 | 1504 | 46.33 | <.0001 |
| 2014 | 374 | 12.59 | 725 | 24.4 | 585 | 19.69 | 1287 | 43.32 | |
| 2015 | 382 | 13.53 | 724 | 25.65 | 574 | 20.33 | 1143 | 40.49 | |
| Sex | | | | | | | | | |
| Male | 428 | 12.04 | 892 | 25.09 | 709 | 19.94 | 1526 | 42.93 | 0.38 |
| Female | 685 | 12.49 | 1268 | 23.12 | 1124 | 20.49 | 2408 | 43.9 | |
| Age (years) | 45.54 | 11.70 | 45.11 | 10.93 | 45.49 | 10.93 | 46.49 | 10.55 | <.0001 |
| Region | | | | | | | | | |
| Urban | 910 | 12.22 | 1775 | 23.84 | 1526 | 20.49 | 3236 | 43.45 | 0.73 |
| Rural | 203 | 12.74 | 385 | 24.17 | 307 | 19.27 | 698 | 43.82 | |
| Income level (quartiles) | | | | | | | | | |
| Q1 | 394 | 18.39 | 550 | 25.68 | 391 | 18.25 | 807 | 37.68 | <.0001 |
| Q2 | 288 | 12.67 | 587 | 25.82 | 481 | 21.16 | 917 | 40.34 | |
| Q3 | 239 | 10.51 | 529 | 23.25 | 485 | 21.32 | 1022 | 44.92 | |
| Q4 | 187 | 8.07 | 486 | 20.98 | 468 | 20.21 | 1175 | 50.73 | |
| Current smoker | | | | | | | | | |
| No | 810 | 11.63 | 1668 | 23.94 | 1421 | 20.4 | 3067 | 44.03 | <.01 |
| Yes | 248 | 14.96 | 392 | 23.64 | 325 | 19.6 | 693 | 41.8 | |

Supplemental Table 4. The effect of metabolic mediators (M) in the association between fruit intake (X) and stroke (Y).

| Metabolic Factors (M) | Fruit intake | | | | | | | | | | | |
|-----------------------|--------------|-------|-------|-----------|-------|--------|-------------------------------|-------|------|-----------------------|--------|--------|
| | X → M (a) | | | M → Y (b) | | | X → Y (c' = direct effect) | | | Indirect effect (a*b) | | |
| | β | SE | p | β | SE | p | β | SE | p | β | 95% CI | |
| SBP ^a | -0.484 | 0.144 | <.001 | 0.015 | 0.006 | <.01 | -0.242 | 0.100 | 0.02 | -0.007 | -0.017 | -0.001 |
| TC ^a | -0.156 | 0.357 | 0.66 | -0.018 | 0.003 | <.0001 | -0.268 | 0.105 | 0.01 | 0.003 | -0.009 | 0.016 |
| FPG ^a | -0.665 | 0.217 | <.01 | 0.005 | 0.004 | 0.19 | -0.269 | 0.105 | 0.01 | -0.003 | -0.008 | 0.002 |
| BMI ^a | -0.059 | 0.034 | 0.08 | 0.074 | 0.029 | 0.01 | -0.249 | 0.100 | 0.01 | -0.004 | -0.013 | 0.001 |
| SBP ^b | -0.420 | 0.139 | <.01 | 0.013 | 0.006 | 0.03 | -0.238 | 0.100 | 0.02 | -0.005 | -0.014 | 0.001 |
| TC ^b | -0.064 | 0.352 | 0.86 | -0.018 | 0.003 | <.0001 | -0.255 | 0.105 | 0.02 | 0.001 | -0.011 | 0.015 |
| FPG ^b | -0.614 | 0.214 | <.01 | 0.003 | 0.004 | 0.37 | -0.260 | 0.105 | 0.01 | -0.002 | -0.007 | 0.004 |

SBP: systolic blood pressure, TC: total cholesterol, FPG: fasting plasma glucose, BMI: body mass index, SE: standard error, 95% CI: 95% confidence interval.

^aAdjusted for sex, age, income, region (urban/rural), current smoking, and survey year.

^bAdjusted for sex, age, income, region (urban/rural), current smoking, survey year, and body mass index.

All analyzes were performed separately according to each metabolic mediator.

Supplemental Table 5. The effect of metabolic mediators (M) in the association between fruit intake (X) and ischemic heart disease (Y).

| Metabolic Factors (M) | Fruit intake | | | | | | | | | | | |
|-----------------------|--------------|-------|-------|-----------|-------|--------|-------------------------------|-------|------|-----------------------|--------|---------|
| | X → M (a) | | | M → Y (b) | | | X → Y (c' = direct effect) | | | Indirect effect (a*b) | | |
| | β | SE | p | β | SE | p | β | SE | p | β | 95% CI | |
| SBP ^a | -0.484 | 0.144 | <.001 | 0.011 | 0.006 | 0.06 | -0.065 | 0.097 | 0.51 | -0.006 | -0.013 | -0.0001 |
| TC ^a | -0.156 | 0.357 | 0.66 | -0.021 | 0.003 | <.0001 | -0.042 | 0.100 | 0.67 | 0.003 | -0.012 | 0.019 |
| FPG ^a | -0.665 | 0.217 | <.01 | 0.002 | 0.004 | 0.65 | -0.048 | 0.099 | 0.63 | -0.001 | -0.006 | 0.004 |
| BMI ^a | -0.059 | 0.034 | 0.08 | 0.079 | 0.031 | 0.01 | -0.069 | 0.097 | 0.48 | -0.005 | -0.012 | 0.001 |
| SBP ^b | -0.420 | 0.139 | <.01 | 0.010 | 0.006 | 0.12 | -0.047 | 0.097 | 0.63 | -0.004 | -0.011 | 0.001 |
| TC ^b | -0.064 | 0.352 | 0.86 | -0.020 | 0.003 | <.0001 | -0.018 | 0.100 | 0.86 | 0.001 | -0.013 | 0.016 |
| FPG ^b | -0.614 | 0.214 | <.01 | 0.001 | 0.004 | 0.88 | -0.028 | 0.099 | 0.78 | 0.000 | -0.004 | 0.005 |

SBP: systolic blood pressure, TC: total cholesterol, FPG: fasting plasma glucose, BMI: body mass index, SE: standard error, 95% CI: 95% confidence interval.

^aAdjusted for sex, age, income, region (urban/rural), current smoking, and survey year.

^bAdjusted for sex, age, income, region (urban/rural), current smoking, survey year, and body mass index.

All analyzes were performed separately according to each metabolic mediator.