

Supplementary Material

Table S1. Race-specific multivariable adjusted hazard ratios and 95% confidence intervals for physical activity and stroke

| | Poor Physical Activity | Intermediate Physical Activity | Ideal Physical Activity | P for trend |
|------------------------------|---------------------------|-----------------------------------|----------------------------|----------------|
| African-Americans | | | | |
| Total stroke | | | | |
| No. of cases | 252 | 34 | 21 | |
| Person-years * | 40,763.7 | 7,569.9 | 6,311.0 | |
| Incidence rate * | 6.18 (5.46,6.99) | 4.49 (3.21,6.29) | 3.33 (2.17,5.10) | |
| Model 1 †# | 1 | 0.76 (0.53,1.10) | 0.58 (0.37,0.90) | 0.007 |
| Model 2 ‡# | 1 | 0.84 (0.58,1.21) | 0.64 (0.41,1.01) | 0.042 |
| Model 3 §# | 1 | 0.89 (0.61,1.28) | 0.71 (0.45,1.11) | 0.114 |
| Total ischemic stroke | | | | |
| No. of cases | 223 | 31 | 14 | |
| Person-years * | 40,918.4 | 7,575.1 | 6,357.9 | |
| Incidence rate * | 5.45 (4.78,6.21) | 4.09 (2.88,5.82) | 2.20 (1.30,3.72) | |
| Model 1 †# | 1 | 0.77 (0.53,1.13) | 0.43 (0.25,0.74) | 0.001 |
| Model 2 ‡# | 1 | 0.86 (0.59,1.26) | 0.49 (0.28,0.84) | 0.010 |
| Model 3 §# | 1 | 0.91 (0.62,1.33) | 0.53 (0.31,0.92) | 0.030 |
| Caucasians | | | | |
| Total stroke | | | | |
| No. of cases | 244 | 113 | 76 | |
| Person-years * | 86,499.8 | 50,034.1 | 34,392.2 | |
| Incidence rate * | 2.82 (2.49,3.20) | 2.26 (1.88,2.72) | 2.21 (1.76,2.77) | |
| Model 1 †# | 1 | 0.79 (0.63,0.99) | 0.77 (0.59,1.00) | 0.022 |
| Model 2 ‡# | 1 | 0.83 (0.66,1.04) | 0.82 (0.63,1.06) | 0.071 |
| Model 3 §# | 1 | 0.88 (0.70,1.11) | 0.90 (0.69,1.18) | 0.325 |
| Total ischemic stroke | | | | |
| No. of cases | 207 | 104 | 69 | |
| Person-years * | 86,645.2 | 50,078.8 | 34,415.4 | |
| Incidence rate * | 2.39 (2.08,2.74) | 2.08 (1.71,2.52) | 2.00 (1.58,2.54) | |
| Model 1 †# | 1 | 0.85 (0.67,1.08) | 0.81 (0.62,1.07) | 0.099 |
| Model 2 ‡# | 1 | 0.89 (0.70,1.13) | 0.86 (0.65,1.13) | 0.221 |
| Model 3 §# | 1 | 0.96 (0.75,1.21) | 0.96 (0.73,1.28) | 0.736 |

* Incidence rate per 1,000 person-years.

† Adjusted for age, sex and race-center.

‡ Adjusted for age, sex, race-center, cigarette-years and education.

§ Adjusted for age, sex, race-field center, cigarette-years, educational level, waist-to-hip ratio, systolic blood pressure, antihypertensive medication use, diabetes, left ventricular hypertrophy, HDL cholesterol, LDL cholesterol, lipoprotein(a), fibrinogen, van Willebrand Factor and white blood cell count.

Not adjusted for race.

Table S2. Race-specific multivariable adjusted hazard ratios and 95% confidence intervals for physical activity and ischemic stroke subtypes.

| | Poor Physical Activity | Intermediate Physical Activity | Ideal Physical Activity | P for trend |
|-----------------------------|---------------------------|-----------------------------------|----------------------------|----------------|
| African-Americans | | | | |
| Lacunar stroke | | | | |
| No. of cases | 67 | 6 | 8 | |
| Model 1 * [§] | 1 | 0.50 (0.21,1.16) | 0.78 (0.37,1.64) | 0.235 |
| Model 2 † [§] | 1 | 0.57 (0.25,1.34) | 0.93 (0.44,1.96) | 0.512 |
| Model 3 ‡ [§] | 1 | 0.57 (0.25,1.34) | 1.04 (0.49,2.21) | 0.667 |
| Cardioembolic stroke | | | | |
| No. of cases | 47 | 7 | 2 | |
| Model 1 * [§] | 1 | 0.95 (0.43,2.13) | 0.32 (0.08,1.31) | 0.137 |
| Model 2 † [§] | 1 | 1.07 (0.48,2.41) | 0.36 (0.09,1.50) | 0.234 |
| Model 3 ‡ [§] | 1 | 1.11 (0.49,2.51) | 0.36 (0.09,1.49) | 0.242 |
| Nonlacunar stroke | | | | |
| No. of cases | 109 | 18 | 4 | |
| Model 1 * [§] | 1 | 0.86 (0.51,1.42) | 0.24 (0.09,0.65) | 0.005 |
| Model 2 † [§] | 1 | 0.94 (0.57,1.57) | 0.27 (0.10,0.73) | 0.014 |
| Model 3 ‡ [§] | 1 | 1.02 (0.61,1.71) | 0.30 (0.11,0.81) | 0.037 |
| Caucasians | | | | |
| Lacunar stroke | | | | |
| No. of cases | 34 | 18 | 11 | |
| Model 1 * [§] | 1 | 0.86 (0.48,1.53) | 0.71 (0.36,1.42) | 0.320 |
| Model 2 † [§] | 1 | 0.92 (0.52,1.64) | 0.79 (0.39,1.58) | 0.506 |
| Model 3 ‡ [§] | 1 | 1.03 (0.57,1.84) | 0.97 (0.48,1.97) | 0.969 |
| Cardioembolic stroke | | | | |
| No. of cases | 53 | 23 | 18 | |
| Model 1 * [§] | 1 | 0.75 (0.46,1.22) | 0.84 (0.49,1.44) | 0.378 |
| Model 2 † [§] | 1 | 0.77 (0.47,1.26) | 0.88 (0.51,1.51) | 0.480 |
| Model 3 ‡ [§] | 1 | 0.83 (0.51,1.37) | 0.96 (0.55,1.68) | 0.758 |
| Nonlacunar stroke | | | | |
| No. of cases | 120 | 63 | 40 | |
| Model 1 * [§] | 1 | 0.90 (0.66,1.22) | 0.83 (0.58,1.19) | 0.272 |
| Model 2 † [§] | 1 | 0.93 (0.68,1.26) | 0.86 (0.60,1.24) | 0.406 |
| Model 3 ‡ [§] | 1 | 0.99 (0.73,1.35) | 0.94 (0.65,1.37) | 0.779 |

* Adjusted for age, sex and race-center.

† Adjusted for age, sex, race-center, cigarette-years and education.

‡ Adjusted for age, sex, race-field center, cigarette-years, educational level, waist-to-hip ratio, systolic blood pressure, antihypertensive medication use, diabetes, left ventricular hypertrophy, HDL cholesterol, LDL cholesterol, lipoprotein(a), fibrinogen, van Willebrand Factor and white blood cell count.

§ Not adjusted for race.

Table S3. Multivariate adjusted Hazard ratios and 95% confidence intervals for quartiles* of physical activity and total and ischemic stroke

| | Sport Score | | | | P for trend | Leisure Score | | | | P for trend |
|------------------------------|---------------------|---------------------|---------------------|---------------------|-------------|---------------------|---------------------|---------------------|---------------------|-------------|
| | Q1 | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | |
| Total stroke | | | | | | | | | | |
| No. of cases | 247 | 173 | 197 | 123 | | 304 | 122 | 200 | 114 | |
| Person-years | 62,091.9 | 52,870.8 | 64,135.0 | 46,473.1 | | 74,553.7 | 38,938.4 | 69,255.0 | 42,823.6 | |
| Incidence rate [†] | 3.98 (3.51,4.51) | 3.27 (2.82,3.80) | 3.07 (2.67,3.53) | 2.65 (2.22,3.16) | | 4.08 (3.64,4.56) | 3.13 (2.62,3.74) | 2.89 (2.51,3.32) | 2.66 (2.22,3.20) | |
| Model 1 [‡] | 1 (0.67,0.99) | (0.70,1.02) | (0.61,0.96) | 0.021 | | 1 (0.76,1.17) | (0.75,1.08) | (0.69,1.07) | 0.134 | |
| Model 2 [§] | 1 (0.67,0.98) | (0.73,1.08) | (0.66,1.03) | 0.117 | | 1 (0.80,1.23) | (0.79,1.14) | (0.75,1.17) | 0.479 | |
| Model 3 [#] | 1 (0.70,1.04) | (0.77,1.13) | (0.74,1.17) | 0.540 | | 1 (0.82,1.26) | (0.83,1.21) | (0.83,1.31) | 0.789 | |
| Total ischemic stroke | | | | | | | | | | |
| No. of cases | 211 | 155 | 167 | 115 | | 267 | 107 | 171 | 103 | |
| Person-years | 62,263.8 | 52,961.2 | 64,244.3 | 46,521.5 | | 74,736.3 | 39,012.2 | 69,375.2 | 42,867.1 | |
| Incidence rate [†] | 3.39 (2.96,3.88) | 2.93 (2.50,3.43) | 2.60 (2.23,3.03) | 2.47 (2.06,2.97) | | 3.57 (3.17,4.03) | 2.74 (2.27,3.31) | 2.46 (2.12,2.86) | 2.40 (1.98,2.91) | |
| Model 1 [‡] | 1 (0.69,1.04) | (0.67,1.02) | (0.65,1.04) | 0.065 | | 1 (0.74,1.17) | (0.71,1.06) | (0.69,1.11) | 0.152 | |
| Model 2 [§] | 1 (0.69,1.04) | (0.71,1.07) | (0.70,1.12) | 0.261 | | 1 (0.78,1.24) | (0.75,1.12) | (0.75,1.21) | 0.483 | |
| Model 3 [#] | 1 (0.72,1.10) | (0.74,1.12) | (0.79,1.28) | 0.848 | | 1 (0.80,1.27) | (0.80,1.19) | (0.85,1.36) | 0.762 | |

* Cut-points for the approximated quartiles were 1.75/2.25/3.0 for the sport score and 2.0/2.25/2.75 for the leisure score.

† Incidence rate per 1000 person-years.

‡ Adjusted for age, sex and race-center.

§ Adjusted for age, sex, race-center, cigarette-years and education.

Adjusted for age, sex, race-field center, cigarette-years, educational level, waist-to-hip ratio, systolic blood pressure, antihypertensive medication use, diabetes, left ventricular hypertrophy, HDL cholesterol, LDL cholesterol, lipoprotein(a), fibrinogen, van Willebrand Factor and white blood cell count.

Table S4. Multivariate adjusted Hazard ratios and 95% confidence intervals for quartiles* of physical activity and ischemic stroke subtypes

| | Sports | | | | | Leisure | | | | P for trend |
|-----------------------------|--------|-------------|-------------|-------------|-------------|---------|-------------|-------------|-------------|-------------|
| | Q1 | Q2 | Q3 | Q4 | P for trend | Q1 | Q2 | Q3 | Q4 | |
| Lacunar stroke | | | | | | | | | | |
| No. of cases | 42 | 41 | 41 | 20 | | 70 | 25 | 30 | 19 | |
| | | 1.19 | 1.19 | 0.88 | | | 0.95 | 0.69 | 0.74 | |
| Model 1 [†] | 1 | (0.77,1.83) | (0.76,1.84) | (0.51,1.53) | 0.904 | 1 | (0.60,1.52) | (0.44,1.07) | (0.44,1.25) | 0.010 |
| | | 1.17 | 1.28 | 1.00 | | | 1.03 | 0.75 | 0.83 | |
| Model 2 [‡] | 1 | (0.76,1.80) | (0.83,2.00) | (0.57,1.73) | 0.672 | 1 | (0.65,1.65) | (0.48,1.17) | (0.49,1.41) | 0.254 |
| | | 1.21 | 1.33 | 1.16 | | | 1.04 | 0.78 | 0.93 | |
| Model 3 [§] | 1 | (0.79,1.87) | (0.86,2.08) | (0.66,2.02) | 0.365 | 1 | (0.65,1.67) | (0.50,1.22) | (0.55,1.59) | 0.452 |
| Cardioembolic stroke | | | | | | | | | | |
| No. of cases | 47 | 41 | 33 | 29 | | 60 | 29 | 37 | 24 | |
| | | 0.99 | 0.73 | 0.92 | | | 1.09 | 0.79 | 0.85 | |
| Model 1 [†] | 1 | (0.65,1.51) | (0.46,1.14) | (0.57,1.48) | 0.395 | 1 | (0.69,1.72) | (0.52,1.21) | (0.52,1.39) | 0.294 |
| | | 0.99 | 0.76 | 0.98 | | | 1.14 | 0.83 | 0.92 | |
| Model 2 [‡] | 1 | (0.65,1.50) | (0.48,1.20) | (0.60,1.59) | 0.594 | 1 | (0.73,1.80) | (0.54,1.27) | (0.56,1.51) | 0.478 |
| | | 1.04 | 0.78 | 1.11 | | | 1.16 | 0.86 | 1.05 | |
| Model 3 [§] | 1 | (0.68,1.58) | (0.49,1.23) | (0.68,1.81) | 0.882 | 1 | (0.73,1.83) | (0.56,1.32) | (0.64,1.73) | 0.789 |
| Nonlacunar stroke | | | | | | | | | | |
| No. of cases | 122 | 73 | 93 | 66 | | 137 | 53 | 104 | 60 | |
| | | 0.68 | 0.75 | 0.75 | | | 0.87 | 0.98 | 0.95 | |
| Model 1 [†] | 1 | (0.51,0.91) | (0.57,0.99) | (0.55,1.02) | 0.060 | 1 | (0.63,1.20) | (0.75,1.28) | (0.69,1.30) | 0.822 |
| | | 0.69 | 0.79 | 0.80 | | | 0.91 | 1.03 | 1.02 | |
| Model 2 [‡] | 1 | (0.51,0.92) | (0.60,1.04) | (0.59,1.09) | 0.151 | 1 | (0.66,1.26) | (0.79,1.34) | (0.74,1.40) | 0.792 |
| | | 0.72 | 0.82 | 0.91 | | | 0.93 | 1.10 | 1.14 | |
| Model 3 [§] | 1 | (0.53,0.96) | (0.62,1.08) | (0.66,1.24) | 0.458 | 1 | (0.68,1.29) | (0.84,1.43) | (0.83,1.57) | 0.325 |

* Cut-points for the approximated quartiles were 1.75/2.25/3.0 for the sport score and 2.0/2.25/2.75 for the leisure score.

† Adjusted for age, sex and race-center.

‡ Adjusted for age, sex, race-center, cigarette-years and education

§ Adjusted for age, sex, race-field center, cigarette-years, educational level, waist-to-hip ratio, systolic blood pressure, antihypertensive medication use, diabetes, left ventricular hypertrophy, HDL cholesterol, LDL cholesterol, lipoprotein(a), fibrinogen, van Willebrand Factor and white blood cell count.