**Supplementary Table S1:** Association between total meat intake and CVD risk factors and measures of subclinical atherosclerosis among *males* who were consuming meat: β-coefficients (95% confidence interval) per SD change and 10 gram per 1000 kcal per day of meat intake

| CVD risk factor | Regression Models | Per SD change | | 10 gram/1000 kcal/day | |
|---|---|---|---|---|---|
| | | β-coef (95% CI) | p-value | β-coef (95% CI) | p-value |
| SBP, (n= 3097) | Model 1 | 0.68 (0.16, 1.21) | 0.011* | 1.01 (0.35, 1.67) | 0.003* |
| | Model 2 | 0.45 (–0.08, 0.98) | 0.099 | 0.73 (0.07, 1.39) | 0.032 |
| | Model 3 | 0.31 (–0.25, 0.87) | 0.276 | 0.54 (–0.13, 1.20) | 0.114 |
| | Model 4 | 0.18 (–0.41, 0.76) | 0.550 | 0.56 (-0.11, 1.22) | 0.101 |
| DBP, (n= 3097) | Model 1 | 1.01 (0.58, 1.44) | <0.001* | 1.20 (0.66, 1.74) | <0.001* |
| | Model 2 | 0.75 (0.32, 1.19) | 0.001* | 0.89 (0.35, 1.44) | 0.001* |
| | Model 3 | 0.62 (0.16, 1.08) | 0.008* | 0.73 (0.18, 1.28) | 0.010* |
| | Model 4 | 0.49 (0.01, 0.97) | 0.048 | 0.75 (0.20, 1.30) | 0.007* |
| BMI, (n= 3097) | Model 1 | 0.56 (0.44, 0.69) | <0.001* | 0.64 (0.48, 0.80) | <0.001* |
| | Model 2 | 0.44 (0.32, 0.56) | <0.001* | 0.49 (0.33, 0.64) | <0.001* |
| | Model 3 | 0.44 (0.31, 0.57) | <0.001* | 0.44 (0.28, 0.59) | <0.001* |
| | Model 4 | 0.32[a] (0.19, 0.46) | <0.001* | 0.46[b] (0.31, 0.61) | <0.001* |
| WC, (n= 3097) | Model 1 | 15.22 (11.84, 18.61) | <0.001* | 17.12 (12.86, 21.38) | <0.001* |
| | Model 2 | 11.26 (7.91, 14.60) | <0.001* | 12.25 (8.06, 16.45) | <0.001* |
| | Model 3 | 10.85 (7.33, 14.37) | <0.001* | 10.74 (6.54, 14.94) | <0.001* |
| | Model 4 | 7.88 (4.21, 11.55) | <0.001* | 11.27 (7.10, 15.44) | <0.001* |
| Fasting Glucose (log), (n= 3097) | Model 1 | –0.001 (–0.006, 0.005) | 0.871 | –0.002 (–0.005, 0.009) | 0.667 |
| | Model 2 | –0.003 (–0.009, 0.003) | 0.188 | –0.002 (–0.009, 0.006) | 0.713 |
| | Model 3 | –0.003 (–0.009, 0.004) | 0.415 | –0.002 (–0.010, 0.005) | 0.536 |
| | Model 4 | –0.003 (–0.009, 0.004 ) | 0.454 | –0.002 (–0.010, 0.005) | 0.528 |
| HOMA-IR (log), (n= 3097) | Model 1 | 0.062 (0.029, 0.094) | 0.001* | 0.079 (0.038, 0.120) | 0.001* |
| | Model 2 | 0.044 (0.011, 0.077) | 0.010* | 0.057 (0.015, 0.098) | 0.007* |
| | Model 3 | 0.046 (0.011, 0.080) | 0.009 | 0.048 (0.007, 0.089) | 0.022* |
| | Model 4 | 0.037 (0.001, 0.073) | 0.045 | 0.050 (0.009, 0.091) | 0.017* |
| Total cholesterol, (n= 3097) | Model 1 | 3.23 (1.97, 4.89) | <0.001* | 4.12 (2.54, 5.71) | <0.001* |
| | Model 2 | 2.76 (1.48, 4.03) | <0.001* | 3.55 (1.95, 5.15) | <0.001* |
| | Model 3 | 2.89 (1.55, 4.24) | <0.001* | 3.23 (1.62, 4.84) | <0.001* |
| | Model 4 | 2.32 (0.91, 3.72) | 0.001* | 3.35 (1.74, 4.95) | <0.001* |
| HDL | Model 1 | –0.18 (–0.62, 0.26) | 0.418 | 0.005 (–0.54, 0.56) | 0.985 |
| | Model 2 | 0.003 (–0.44, 0.45) | 0.990 | 0.23 (–0.33, 0.78) | 0.424 |
| | Model 3 | 0.08 (–0.38, 0.55) | 0.729 | 0.32 (–0.23, 0.88) | 0.255 |
| | Model 4 | 0.07 (–0.42, 0.56) | 0.781 | 0.33 (–0.23, 0.89) | 0.251 |
| LDL | Model 1 | 2.22 (1.17, 3.28) | <0.001* | 3.07 (1.75, 4.40) | <0.001* |
| | Model 2 | 1.71 (0.65, 2.78) | 0.002* | 2.47 (1.13, 3.81) | <0.001* |
| | Model 3 | 1.82 (0.70, 2.94) | 0.002* | 2.20 (0.86, 3.55) | 0.001* |
| | Model 4 | 1.52 (0.34, 2.70) | 0.011* | 2.26 (0.92, 3.61) | 0.001* |
| TG (log) | Model 1 | 0.047 (0.030, 0.064) | <0.001* | 0.046 (0.025, 0.066) | <0.001* |
| | Model 2 | 0.041 (0.024, 0.058) | <0.001* | 0.038 (0.017, 0.059) | <0.001* |
| | Model 3 | 0.040 (0.022, 0.058) | <0.001* | 0.033 (0.012, 0.054) | 0.003* |
| | Model 4 | 0.032 (0.012, 0.050) | 0.001* | 0.034 (0.013, 0.056) | 0.002* |
| CRP (log) | Model 1 | –0.001 (–0.046, 0.044) | 0.966 | 0.045 (–0.012, 0.102) | 0.121 |
| | Model 2 | –0.015 (–0.061, 0.031) | 0.525 | 0.029 (–0.028, 0.087) | 0.316 |
| | Model 3 | –0.011 (–0.059, 0.038) | 0.662 | 0.022 (–0.035, 0.080) | 0.449 |
| | Model 4 | 0.005 (–0.046, 0.055) | 0.859 | 0.020 (–0.037, 0.078) | 0.492 |
| CIMT (n= 1682) | Model 1 | –0.010 (–0.019, -0.001) | 0.040 | –0.011 (–0.023, 0.002) | 0.099 |
| | Model 2 | –0.007 (–0.016, 0.002) | 0.145 | –0.007 (–0.020, 0.006) | 0.306 |
| | Model 3 | –0.005 (–0.015, 0.005) | 0.297 | –0.005 (–0.018, 0.008) | 0.409 |
| | Model 4 | –0.002 (–0.013, 0.009) | 0.690 | –0.006 (–0.019, 0.007) | 0.360 |
| PWV (log) | Model 1 | 0.009 (0.002, 0.016) | 0.009* | 0.010 (–0.0001, 0.019) | 0.052 |
| | Model 2 | 0.008 (0.001, 0.015) | 0.029* | 0.007 (–0.003, 0.017) | 0.148 |
| | Model 3 | 0.005 (-0.003, 0.012) | 0.233 | 0.004 (–0.005, 0.014) | 0.382 |
| | Model 4 | 0.002 (-0.006, 0.010) | 0.675 | 0.005 (–0.005, 0.015) | 0.323 |
| AIx (log) | Model 1 | 0.042 (0.019, 0.065) | <0.001* | 0.027 (–0.004, 0.058) | 0.084 |
| | Model 2 | 0.043 (0.020, 0.067) | <0.001* | 0.028 (–0.003, 0.060) | 0.079 |
| | Model 3 | 0.036 (0.011, 0.061) | 0.004* | 0.023 (–0.009, 0.054) | 0.159 |

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| | Model 4 | 0.029 (0.003, 0.056) | 0.028* | 0.025 (–0.007, 0.056) | 0.131 |

SD, standard deviation; SBP, systolic blood pressure; DBP, diastolic blood pressure; CIMT, Carotid Intima-Media Thickness; PWV, Pulse Wave Velocity; AIx, Augmentation Index; BMI, body mass index; WC, waist circumference; HDL-C, high density lipoprotein cholesterol; LDL-C, low density lipoprotein cholesterol; HOMA-IR, Homeostasis model assessment insulin resistance;
Data was analysed for 3097 males for all CVD risk factors. For CIMT, PWV, and AIx, data was analyzed for 1682, 1658 and 1584 males, respectively;
1 SD of total meat for male for all CVD risk factors was equal to 27.79 grams/day; 1 SD total meat for male for CIMT was equal to 25.92 grams/day; 1 SD total meat for male for PWV was equal to 26.00 grams/day; 1 SD total meat for male for AIx was equal to 26.67 grams/day; * significant association after accounting for the effect of multiple testing using the Benjamini–Hochberg method; [a]β-coefficient of 0.32 means that a 1 SD (27.79 grams/day ) increase in meat intake among male participants was associated with 0.32 kg/m$^2$ higher BMI after adjusting for the effect of potential confounders on BMI. [b]β-coefficient of 0.46 means that a-10 gram per 1000 kcal per day increase in meat intake among male participants was associated with 0.46 kg/m$^2$ higher BMI after adjusting for the effect of potential confounders on BMI.

**Supplementary Table S2:** Association between total meat intake and CVD risk factors and measures of subclinical atherosclerosis among *females* who were consuming meat: β-coefficients (95% confidence interval) per SD change and 10 gram per 1000 kcal per day of meat intake

| CVD risk factor | Regression Models | Per SD change | | 10 gram/1000 kcal/day | |
|---|---|---|---|---|---|
| | | β-coef (95% CI) | p-value | β-coef (95% CI) | p-value |
| SBP, (n= 2675) | Model 1 | 0.48 (–0.01, 0.97) | 0.053 | 1.15 (0.42, 1.87) | 0.002* |
| | Model 2 | 0.41 (–0.08, 0.91) | 0.100 | 1.07 (0.34, 1.80) | 0.004* |
| | Model 3 | 0.35 (–0.19, 0.88) | 0.201 | 1.03 (0.29, 1.76) | 0.006* |
| | Model 4 | 0.43 (–0.112, 0.97) | 0.120 | 0.98 (0.24, 1.72) | 0.009* |
| DBP, (n= 2675) | Model 1 | 0.46 (0.05, 0.86) | 0.027 | 0.85 (0.25, 1.45) | 0.006* |
| | Model 2 | 0.38 (–0.03, 0.78) | 0.072 | 0.76 (0.15, 1.36) | 0.014* |
| | Model 3 | 0.34 (–0.10, 0.79) | 0.128 | 0.73 (0.12, 1.34) | 0.019* |
| | Model 4 | 0.39 (–0.06, 0.84) | 0.090 | 0.71 (0.10, 1.33) | 0.023* |
| BMI, (n= 2675) | Model 1 | 0.28 (0.13, 0.42) | <0.001* | 0.29 (0.07, 0.50) | 0.009* |
| | Model 2 | 0.18 (0.04, 0.33) | 0.015 | 0.18 (–0.04, 0.39) | 0.106 |
| | Model 3 | 0.13 (–0.02, 0.29) | 0.094 | 0.15 (–0.06, 0.37) | 0.165 |
| | Model 4 | 0.12 (–0.04, 0.28) | 0.152 | 0.17 (–0.04, 0.39) | 0.116 |
| WC, (n= 2675) | Model 1 | 7.04 (3.47, 10.61) | <0.001* | 6.14 (0.81, 11.47) | 0.024* |
| | Model 2 | 4.72 (1.15, 8.29) | 0.010* | 3.42 (–1.88, 8.72) | 0.205 |
| | Model 3 | 3.04 (–0.81, 6.89) | 0.122 | 2.56 (–2.75, 7.87) | 0.345 |
| | Model 4 | 2.33 (–1.59, 6.25) | 0.243 | 3.30 (–2.04, 8.65) | 0.226 |
| Fasting Glucose (log), (n= 2675) | Model 1 | 0.004 (–0.003, 0.010) | 0.276 | 0.012 (0.003, 0.022) | 0.008* |
| | Model 2 | 0.002 (–0.005, 0.008) | 0.647 | 0.010 (0.001, 0.019) | 0.031 |
| | Model 3 | 0.004 (–0.003, 0.011) | 0.247 | 0.011 (0.002, 0.021) | 0.018* |
| | Model 4 | 0.005 (–0.002, 0.012) | 0.136 | 0.011 (0.001, 0.020) | 0.028 |
| HOMA-IR (log), (n= 2675) | Model 1 | 0.056 (0.024, 0.087) | 0.001* | 0.085 (0.038, 0.132) | <0.001* |
| | Model 2 | 0.040 (0.008, 0.071) | 0.013* | 0.067 (0.020, 0.114) | 0.005* |
| | Model 3 | 0.045 (0.010, 0.079) | 0.011* | 0.068 (0.021, 0.115) | 0.005* |
| | Model 4 | 0.041 (0.007, 0.076) | 0.019 | 0.073 (0.025, 0.120) | 0.003* |
| Total cholesterol, (n= 2675) | Model 1 | 2.21 (0.91, 3.51) | 0.001* | 3.21 (1.27, 5.14) | 0.001* |
| | Model 2 | 2.06 (0.75, 3.37) | 0.002* | 3.02 (1.07, 4.97) | 0.002* |
| | Model 3 | 2.21 (0.79, 3.63) | 0.002* | 2.98 (1.02, 4.94) | 0.003* |
| | Model 4 | 2.21[a] (0.77, 3.66) | 0.003* | 3.10[b] (1.12, 5.07) | 0.002* |
| HDL, (n= 2675) | Model 1 | 0.16 (–0.31, 0.62) | 0.507 | –0.29 (–0.98, 0.41) | 0.419 |
| | Model 2 | 0.24 (–0.23, 0.71) | 0.326 | –0.21 (–0.90, 0.49) | 0.567 |
| | Model 3 | 0.18 (–0.33, 0.69) | 0.492 | –0.26 (–0.96, 0.44) | 0.474 |
| | Model 4 | 0.11 (–0.41, 0.62) | 0.684 | –0.19 (–0.90, 0.51) | 0.594 |
| LDL, (n= 2675) | Model 1 | 1.75 (0.67, 2.83) | 0.002* | 2.68 (1.07, 4.29) | 0.001* |
| | Model 2 | 1.55 (0.46, 2.64) | 0.005* | 2.44 (0.82, 4.06) | 0.003* |
| | Model 3 | 1.64 (0.46, 2.82) | 0.006* | 2.42 (0.79, 4.04) | 0.004* |
| | Model 4 | 1.68 (0.48, 2.88) | 0.006* | 2.47 (0.83, 4.11) | 0.003* |
| TG (log), (n= 2675) | Model 1 | 0.015 (–0.002, 0.031) | 0.081 | 0.032 (0.007, 0.056) | 0.011* |
| | Model 2 | 0.015 (–0.002, 0.031) | 0.089 | 0.032 (0.007, 0.056) | 0.012* |
| | Model 3 | 0.018 (0.000, 0.036) | 0.053 | 0.032 (0.007, 0.057) | 0.011* |
| | Model 4 | 0.018 (–0.001, 0.036) | 0.058 | 0.034 (0.008, 0.059) | 0.009* |
| CRP (log), (n= 2675) | Model 1 | 0.054 (0.007, 0.101) | 0.024 | 0.049 (–0.021, 0.120) | 0.169 |
| | Model 2 | 0.036 (–0.012, 0.083) | 0.143 | 0.028 (–0.043, 0.098) | 0.443 |
| | Model 3 | 0.047 (–0.004, 0.099) | 0.071 | 0.031 (–0.040, 0.101) | 0.393 |
| | Model 4 | 0.041 (–0.012, 0.093) | 0.127 | 0.039 (–0.033, 0.110) | 0.291 |
| CIMT (n= 1493) | Model 1 | –0.0003 (–0.010, 0.010) | 0.961 | 0.001 (–0.013, 0.016) | 0.842 |

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| | Model 2 | 0.001 (–0.009, 0.011) | 0.812 | 0.003 (–0.011, 0.017) | 0.688 |
| | Model 3 | 0.002 (–0.009, 0.013) | 0.699 | 0.003 (–0.011, 0.018) | 0.642 |
| | Model 4 | 0.002 (–0.009, 0.013) | 0.699 | 0.004 (–0.011, 0.018) | 0.637 |
| PWV (log) (n= 1493) | Model 1 | –0.006 (–0.013, 0.002) | 0.139 | –0.009 (–0.019, 0.001) | 0.089 |
| | Model 2 | –0.006 (–0.014, 0.001) | 0.090 | –0.010 (–0.020, 0.001) | 0.066 |
| | Model 3 | –0.005 (–0.013, 0.003) | 0.225 | –0.008 (–0.019, 0.002) | 0.119 |
| | Model 4 | –0.004 (–0.012, 0.004) | 0.298 | –0.009 (–0.020, 0.001) | 0.082 |
| AI (log) (n= 1411) | Model 1 | 0.024 (0.0003, 0.0469) | 0.047 | 0.018 (–0.015, 0.051) | 0.277 |
| | Model 2 | 0.025 (0.001, 0.048) | 0.040 | 0.019 (–0.014, 0.052) | 0.262 |
| | Model 3 | 0.023 (–0.002, 0.048) | 0.076 | 0.016 (–0.017, 0.049) | 0.342 |
| | Model 4 | 0.024 (–0.002, 0.050) | 0.071 | 0.016 (–0.017, 0.050) | 0.340 |

SD, standard deviation; SBP, systolic blood pressure; DBP, diastolic blood pressure; CIMT, Carotid Intima-Media Thickness; PWV, Pulse Wave Velocity; AIx, Augmentation Index; BMI, body mass index; WC, waist circumference; HDL-C, high density lipoprotein cholesterol; LDL-C, low density lipoprotein cholesterol; HOMA-IR, Homeostasis model assessment insulin resistance;
Data was analysed for 2675 females for all CVD risk factors. For CIMT, PWV, and AIx, data was analyzed for 1493, 1493, and 1411 females, respectively;
1 SD of total meat for female for all CVD risk factors was equal to 14.72 grams/day; 1 SD total meat for female for CIMT was equal to 14.93 grams/day; 1 SD total meat for female for PWV was equal to 14.93 grams/day; 1 SD total meat for female for AIx was equal to 15.07 grams/day; * significant association after accounting for the effect of multiple testing using the Benjamini–Hochberg method;
[a]β-coefficient of **2.21** means that a 1 SD (14.28 grams/day ) increase in meat intake among female participants was associated with 2.21 mg/dL higher total cholesterol after adjusting for the effect of potential confounders on total cholesterol.
[b]β-coefficient of **3.10** means that a-10 gram per 1000 kcal per day increase in meat intake among female participants was associated with 3.10 mg/dL higher total cholesterol after adjusting for the effect of potential confounders on total cholesterol.

**Supplementary Table S3.** Association between total meat intake and CVD risk factors and measures of subclinical atherosclerosis among *males* with no diagnosis of CVD or DM or hypertension: β-coefficients (95% confidence interval) per SD change and 10 gram per 1000 kcal per day of meat intake

| CVD risk factor | Regression Models | Per SD change | | 10 gram/1000 kcal/day | |
|---|---|---|---|---|---|
| | | β-coef (95% CI) | p-value | β-coef (95% CI) | p-value |
| SBP, (n= 2861) | Model 1 | 0.79 (0.26, 1.31) | 0.003* | 1.18 (0.52, 1.84) | <0.001* |
| | Model 2 | 0.58 (0.06, 1.10) | 0.028 | 0.95 (0.28, 1.61) | 0.005 |
| | Model 3 | 0.44 (–0.11, 0.99) | 0.114 | 0.74 (0.39, 1.41) | 0.029 |
| | Model 4 | 0.28 (–0.29, 0.86) | 0.335 | 0.75 (0.09, 1.41) | 0.027 |
| DBP, (n= 2779) | Model 1 | 1.07 (0.63, 1.51) | <0.001* | 1.32 (0.77, 1.87) | <0.001* |
| | Model 2 | 0.80 (0.37, 1.24) | <0.001* | 1.04 (0.49, 1.59) | <0.001* |
| | Model 3 | 0.68 (0.23, 1.14) | 0.003* | 0.86 (0.31, 1.42) | 0.002* |
| | Model 4 | 0.53 (0.06, 1.01) | 0.028 | 0.87 (0.32, 1.43) | 0.002* |
| BMI, (n= 2861) | Model 1 | 0.51 (0.38, 0.63) | <0.001* | 0.59 (0.43, 0.74) | <0.001* |
| | Model 2 | 0.39 (0.27, 0.52) | <0.001* | 0.45 (0.29, 0.61) | <0.001* |
| | Model 3 | 0.40 (0.27, 0.53) | <0.001* | 0.41 (0.25, 0.57) | <0.001* |
| | Model 4 | 0.28 (0.15, 0.42) | <0.001* | 0.42 (0.26, 0.57) | <0.001* |
| WC, (n= 3184) | Model 1 | 13.74 (10.38, 17.11) | <0.001* | 15.40 (11.09, 19.71) | <0.001* |
| | Model 2 | 10.15 (6.82, 13.47) | <0.001* | 11.16 (6.92, 15.40) | <0.001* |
| | Model 3 | 10.01 (6.53, 13.49) | <0.001* | 9.85 (5.61, 14.09) | <0.001* |
| | Model 4 | 6.89 (3.26, 10.51) | <0.001* | 10.05 (5.85, 14.26) | <0.001* |
| Fasting Glucose (log), (n= 2861) | Model 1 | –0.005 (–0.006, 0.005) | 0.840 | –0.001 (–0.007, 0.006) | 0.970 |
| | Model 2 | –0.002 (–0.007, 0.003) | 0.478 | –0.002 (–0.009, 0.005) | 0.540 |
| | Model 3 | –0.002 (–0.007, 0.004) | 0.519 | –0.002 (–0.009, 0.004) | 0.464 |
| | Model 4 | –0.002 (–0.008, 0.004) | 0.459 | –0.002 (–0.009, 0.004) | 0.466 |
| HOMA-IR (log), (n= 2861) | Model 1 | 0.048 (0.017, 0.080) | 0.003* | 0.062 (0.021, 0.102) | 0.003* |
| | Model 2 | 0.033 (0.001, 0.064) | 0.044* | 0.044 (0.003, 0.084) | 0.036 |
| | Model 3 | 0.037 (0.004, 0.070) | 0.029 | 0.040 (–0.001, 0.080) | 0.053 |
| | Model 4 | 0.027 (–0.007, 0.062) | 0.124 | 0.041 (0.001, 0.080) | 0.049 |
| Total cholesterol, (n= 2861) | Model 1 | 3.34 (2.08, 4.61) | <0.001* | 4.57 (2.95, 6.19) | <0.001* |
| | Model 2 | 2.88 (1.60, 4.16) | <0.001* | 4.03 (2.39, 5.66) | <0.001* |
| | Model 3 | 3.04 (1.70, 4.39) | <0.001* | 3.71 (2.07, 5.35) | <0.001* |
| | Model 4 | 2.45 (1.04, 3.85) | 0.001* | 3.76 (2.12, 5.39) | <0.001* |
| HDL, (n= 2861) | Model 1 | 0.009 (–0.42, 0.44) | 0.969 | 0.29 (–0.26, 0.84) | 0.299 |
| | Model 2 | 0.16 (–0.28, 0.59) | 0.477 | 0.46 (–0.91, 1.02) | 0.101 |
| | Model 3 | 0.23 (–0.23, 0.68) | 0.329 | 0.52 (–0.03, 1.08) | 0.065 |
| | Model 4 | 0.19 (–0.29, 0.66) | 0.441 | 0.53 (–0.03, 1.08) | 0.063 |
| LDL, (n= 2861) | Model 1 | 2.34 (1.28, 3.40) | <0.001* | 3.45 (2.10, 4.80) | <0.001* |

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| | Model 2 | 1.87 (0.80, 2.94) | 0.001* | 2.92 (1.56, 4.28) | <0.001* |
| | Model 3 | 2.02 (0.90, 3.14) | <0.001* | 2.67 (1.31, 4.04) | <0.001* |
| | Model 4 | 1.71 (0.54, 2.89) | 0.004* | 2.69 (1.33, 4.06) | 0.001* |
| TG (log), (n= 2861) | Model 1 | 0.041 (0.025, 0.058) | <0.001* | 0.040 (0.019, 0.061) | <0.001* |
| | Model 2 | 0.036 (0.019, 0.053) | <0.001* | 0.033 (0.012, 0.055) | <0.001* |
| | Model 3 | 0.034 (0.017, 0.052) | <0.001* | 0.028 (0.007, 0.050) | 0.010* |
| | Model 4 | 0.027 (0.008, 0.045) | 0.005* | 0.029 (0.007, 0.051) | 0.009* |
| CRP (log), (n= 2861) | Model 1 | 0.002 (–0.044, 0.049) | 0.918 | 0.049 (–0.010, 0.108) | 0.106 |
| | Model 2 | –0.010 (–0.057, 0.036) | 0.664 | 0.035 (–0.025, 0.095) | 0.252 |
| | Model 3 | –0.007 (–0.056, 0.042) | 0.772 | 0.028 (–0.032, 0.097) | 0.367 |
| | Model 4 | 0.007 (–0.045, 0.059) | 0.791 | 0.027 (–0.033, 0.087) | 0.379 |
| CIMT, (n= 1539) | Model 1 | –0.011 (–0.020, –0.002) | 0.027* | –0.015 (–0.029, -0.002) | 0.022 |
| | Model 2 | –0.007 (–0.016, 0.002) | 0.133 | –0.011 (–0.024, 0.002) | 0.107 |
| | Model 3 | –0.007 (–0.017, 0.003) | 0.192 | –0.010 (–0.023, 0.003) | 0.147 |
| | Model 4 | –0.004 (–0.015, 0.007) | 0.440 | –0.010 (–0.023, 0.003) | 0.141 |
| PWV (log), (n= 1517) | Model 1 | 0.010 (0.003, 0.017) | 0.007* | 0.010 (–0.001, 0.020) | 0.055 |
| | Model 2 | 0.008 (0.001, 0.016) | 0.023 | 0.008 (–0.002, 0.018) | 0.133 |
| | Model 3 | 0.005 (–0.003, 0.012) | 0.244 | 0.004 (–0.006, 0.014) | 0.404 |
| | Model 4 | 0.001 (–0.007, 0.009) | 0.828 | 0.005 (–0.006, 0.015) | 0.378 |
| AI (log), (n= 1447) | Model 1 | 0.047 (0.023, 0.070) | <0.001* | 0.036 (0.003, 0.069) | 0.033 |
| | Model 2 | 0.048 (0.024, 0.071) | <0.001* | 0.036 (0.003, 0.070) | 0.034 |
| | Model 3 | 0.042 (0.016, 0.068) | 0.001* | 0.029 (–0.004, 0.063) | 0.088 |
| | Model 4 | 0.033 (0.006, 0.061) | 0.016* | 0.030 (–0.004, 0.063) | 0.083 |

AIx, Augmentation Index; BMI, body mass index; CIMT, Carotid Intima-Media Thickness; CMD, cardiometabolic diseases; DBP, diastolic blood pressure; HDL-C, high density lipoprotein cholesterol; HOMA-IR, Homeostasis model assessment insulin resistance; LDL-C, low density lipoprotein cholesterol; SD, standard deviation; SBP, systolic blood pressure; PWV, Pulse Wave Velocity; WC, waist circumference; Data was analysed for 3184 males for all CVD risk factors. For CIMT, PWV, and AIx, data was analyzed for 1730, 1707, and 1631 males, respectively; 1 SD of total meat for male for all CVD risk factors was equal to 27.72 grams/day; 1 SD total meat for male for CIMT was equal to 25.87 grams/day; 1 SD total meat for male for PWV was equal to 25.95 grams/day; 1 SD total meat for male for AIx was equal to 26.35 grams/day; *significant association after accounting for the effect of multiple testing using the Benjamini-Hochberg method.

**Supplementary Table S4.** Association between total meat intake and CVD risk factors and measures of subclinical atherosclerosis among *females* with no diagnosis of CVD or DM or hypertension: β-coefficients (95% confidence interval) per SD change and 10 gram per 1000 kcal per day of meat intake

| CVD risk factor | Regression Models | Per SD change | | 10 gram/1000 kcal/day | |
|---|---|---|---|---|---|
| | | β-coef (95% CI) | p-value | β-coef (95% CI) | p-value |
| SBP, (n= 2496) | Model 1 | 0.55 (0.07, 1.03) | 0.024 | 1.20 (0.49, 1.92) | <0.001* |
| | Model 2 | 0.48 (–0.01, 0.96) | 0.051 | 1.13 (0.41, 1.85) | 0.002* |
| | Model 3 | 0.42 (–0.10, 0.93) | 0.111 | 1.09 (0.37, 1.81) | 0.003* |
| | Model 4 | 0.51 (–0.02, 1.03) | 0.057 | 1.05 (0.32, 1.77) | <0.001* |
| DBP, (n= 2496) | Model 1 | 0.51 (0.10, 0.91) | 0.014* | 0.91 (0.30, 1.51) | 0.003* |
| | Model 2 | 0.43 (0.02, 0.83) | 0.039 | 0.83 (0.22, 1.43) | 0.007* |
| | Model 3 | 0.42 (–0.02, 0.85) | 0.060 | 0.82 (0.21, 1.42) | 0.009* |
| | Model 4 | 0.47 (0.03, 0.91) | 0.037 | 0.80 (0.18, 1.40) | 0.011* |
| BMI, (n= 2496) | Model 1 | 0.23 (0.09, 0.38) | 0.002* | 0.23 (0.02, 0.45) | 0.039* |
| | Model 2 | 0.16 (0.01, 0.30) | 0.033* | 0.15 (–0.07, 0.36) | 0.183 |
| | Model 3 | 0.11 (–0.05, 0.26) | 0.168 | 0.13 (–0.09, 0.34) | 0.251 |
| | Model 4 | 0.10 (–0.06, 0.26) | 0.224 | 0.14 (–0.08, 0.36) | 0.211 |
| WC, (n= 2496) | Model 1 | 6.77 (3.24, 10.29) | <0.001* | 5.86 (0.55, 11.17) | 0.030* |
| | Model 2 | 4.96 (1.45, 8.48) | 0.006* | 3.88 (–1.39, 9.15) | 0.149 |
| | Model 3 | 3.23 (–0.52, 6.98) | 0.091 | 3.08 (–2.20, 8.35) | 0.253 |
| | Model 4 | 2.60 (–1.22, 6.42) | 0.182 | 3.65 (–1.65, 8.94) | 0.177 |
| Fasting Glucose (log), (n= 2496) | Model 1 | 0.005 (–0.001, 0.011) | 0.094 | 0.013 (0.004, 0.021) | 0.004* |
| | Model 2 | 0.003 (–0.002, 0.009) | 0.255 | 0.011 (0.002, 0.020) | 0.012* |
| | Model 3 | 0.005 (–0.001, 0.011) | 0.106 | 0.012 (0.003, 0.020) | 0.008* |
| | Model 4 | 0.006 (–0.001, 0.013) | 0.076 | 0.012 (0.003, 0.020) | 0.009* |

| | | | | | |
|---|---|---|---|---|---|
| HOMA-IR (log), (n= 2496) | Model 1 | 0.049 (0.019, 0.079) | 0.001* | 0.079 (0.033, 0.123) | 0.001* |
| | Model 2 | 0.037 (0.007, 0.067) | 0.017* | 0.065 (0.019, 0.110) | 0.005* |
| | Model 3 | 0.037 (0.005, 0.069) | 0.023* | 0.064 (0.018, 0.109) | 0.006* |
| | Model 4 | 0.036 (0.003, 0.068) | 0.032* | 0.066 (0.021, 0.112) | 0.004* |
| Total cholesterol, (n= 2496) | Model 1 | 2.36 (1.07, 3.64) | <0.001* | 3.20 (1.26, 5.13) | 0.001* |
| | Model 2 | 2.20 (0.91, 3.50) | 0.001* | 3.01 (1.07, 4.95) | 0.002* |
| | Model 3 | 2.45 (1.07, 3.83) | 0.001* | 3.02 (1.08, 4.97) | 0.002* |
| | Model 4 | 2.45 (1.04, 3.86) | 0.001* | 3.13 (1.17, 5.08) | 0.002* |
| HDL, (n= 2496) | Model 1 | 0.23 (–0.22, 0.68) | 0.309 | –0.07 (–0.75, 0.61) | 0.832 |
| | Model 2 | 0.30 (–0.16, 0.75) | 0.198 | –0.01 (–0.69, 0.67) | 0.979 |
| | Model 3 | 0.34 (–0.15, 0.83) | 0.169 | –0.02 (–0.70, 0.67) | 0.959 |
| | Model 4 | 0.25 (–0.24, 0.75) | 0.314 | 0.05 (–0.63, 0.74) | 0.879 |
| LDL, (n= 2496) | Model 1 | 1.85 (0.78, 2.91) | 0.001* | 2.62 (1.01, 4.23) | 0.001* |
| | Model 2 | 1.65 (0.57, 2.72) | 0.003* | 2.39 (0.78, 4.00) | 0.004* |
| | Model 3 | 1.78 (0.64, 2.93) | 0.002* | 2.40 (0.78, 4.01) | 0.004* |
| | Model 4 | 1.83 (0.66, 3.00) | 0.002* | 2.44 (0.82, 4.06) | 0.003* |
| TG (log), (n= 2496) | Model 1 | 0.014 (–0.002, 0.030) | 0.091 | 0.027 (0.002, 0.052) | 0.032* |
| | Model 2 | 0.014 (–0.002, 0.030) | 0.098 | 0.027 (0.002, 0.051) | 0.034* |
| | Model 3 | 0.015 (–0.003, 0.032) | 0.096 | 0.026 (0.002, 0.051) | 0.037* |
| | Model 4 | 0.016 (–0.002, 0.034) | 0.082 | 0.026 (0.002, 0.051) | 0.038* |
| CRP (log), (n= 2496) | Model 1 | 0.055 (0.007, 0.103) | 0.025* | 0.047 (–0.025, 0.119) | 0.202 |
| | Model 2 | 0.042 (–0.007, 0.090) | 0.091 | 0.032 (–0.040, 0.105) | 0.382 |
| | Model 3 | 0.048 (–0.004, 0.099) | 0.070 | 0.034 (–0.039, 0.107) | 0.358 |
| | Model 4 | 0.041 (–0.011, 0.094) | 0.124 | 0.040 (–0.033, 0.113) | 0.280 |
| CIMT, (n= 1375) | Model 1 | 0.003 (–0.006, 0.013) | 0.498 | 0.003 (–0.012, 0.017) | 0.715 |
| | Model 2 | 0.005 (–0.005, 0.015) | 0.353 | 0.004 (–0.011, 0.018) | 0.605 |
| | Model 3 | 0.006 (–0.005, 0.016) | 0.307 | 0.004 (–0.010, 0.019) | 0.586 |
| | Model 4 | 0.005 (–0.006, 0.015) | 0.404 | 0.005 (–0.009, 0.020) | 0.479 |
| PWV (log), (n= 1365) | Model 1 | –0.007 (–0.014, 0.001) | 0.053 | –0.013 (–0.023, –0.002) | 0.021 |
| | Model 2 | –0.008 (–0.015, –0.001) | 0.034 | –0.013 (–0.024, –0.003) | 0.016 |
| | Model 3 | –0.007 (–0.015, 0.001) | 0.079 | –0.012 (–0.023, –0.001) | 0.030 |
| | Model 4 | –0.007 (–0.015, 0.002) | 0.109 | –0.013 (-0.023, –0.002) | 0.018 |
| AI (log), (n= 1285) | Model 1 | 0.021 (–0.003, 0.045) | 0.087 | 0.017 (–0.018, 0.051) | 0.335 |
| | Model 2 | 0.022 (–0.003, 0.046) | 0.083 | 0.017 (–0.018, 0.052) | 0.332 |
| | Model 3 | 0.020 (–0.006, 0.046) | 0.133 | 0.015 (–0.020, 0.050) | 0.402 |
| | Model 4 | 0.020 (–0.006, 0.047) | 0.130 | 0.015 (–0.020, 0.051) | 0.393 |

AIx, Augmentation Index; BMI, body mass index; CIMT, Carotid Intima-Media Thickness; CMD, cardiometabolic diseases; DBP, diastolic blood pressure; HDL-C, high density lipoprotein cholesterol; HOMA-IR, Homeostasis model assessment insulin resistance; LDL-C, low density lipoprotein cholesterol; SD, standard deviation; SBP, systolic blood pressure; PWV, Pulse Wave Velocity; WC, waist circumference; Data was analysed for 2828 females for all CVD risk factors. For CIMT, PWV, and AIx, data was analyzed for 1573, 1570, and 1480 females, respectively; *significant association after accounting for the effect of multiple testing using the Benjamini-Hochberg method; 1 SD of total meat for female for all CVD risk factors was equal to 14.28 grams/day;1-sd total meat for female for CIMT was equal to 14.9 grams/day; 1 SD total meat for female for PWV was equal to 14.9 grams/day; 1 SD total meat for female for AIx was equal to 15.04 grams/day;