



Table S1. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 10 ng/mL, recommended daily calcium intake: 700 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.12, -0.093)	-0.032 (-0.043, -0.022)
Group		
1 (n = 178/709)		
2 (n = 4,179/6,614)	2.18 (1.34, 3.02)	0.71 (0.17, 1.26)
3 (n = 67/93)	2.54 (0.88, 4.19)	0.78 (-0.56, 2.12)
4 (n = 1,432/1,172)	3.00 (2.10, 3.90)	0.98 (0.36, 1.60)
Body mass index, kg/m ²		
< 25		
≥ 25	6.82 (6.45, 7.19)	5.14 (4.85, 5.43)
Nutritional intake		
Total energy intake, kcal/day	0.001 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.10)	-0.072 (-0.088, -0.056)
Smoking		
None		
Past	0.42 (-0.075, 0.92)	0.57 (-0.14, 1.28)
Current	0.29 (-0.16, 0.73)	-0.34 (-0.82, 0.15)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.40 (0.029, 0.78)	0.40 (0.19, 0.61)
Physical activity, MET-min/week	0.0001 (0.00007, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.00 (0.36, 1.64)	0.94 (0.54, 1.35)
High school	1.41 (0.84, 1.99)	1.29 (0.89, 1.70)
≥College	1.60 (1.00, 2.19)	1.05 (0.60, 1.50)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00005, 0.001)
Occupation		
No		
Yes	0.51 (0.11, 0.92)	0.10 (-0.12, 0.32)
Survey year		
2008		
2009	-0.63 (-1.19, -0.076)	-0.023 (-0.38, 0.338)
2010	-1.41 (-2.02, -0.80)	-0.83 (-1.25, -0.42)
2011	-0.19 (-0.96, 0.57)	-0.13 (-0.60, 0.34)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 10 ng/mL and calcium intake < 700 mg

Group 2: 25-hydroxy vitamin D \geq 10 ng/mL and calcium intake < 700 mg

Group 3: 25-hydroxy vitamin D < 10 ng/mL and calcium intake \geq 700 mg

Group 4: 25-hydroxy vitamin D \geq 10 ng/mL and calcium intake \geq 700 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.



Table S2. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 30 ng/mL, recommended daily calcium intake: 700 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.12, -0.092)	-0.032 (-0.042, -0.021)
Group		
1 (n = 3,915/6,940)		
2 (n = 442/383)	0.19 (-0.42, 0.80)	0.12 (-0.38, 0.62)
3 (n = 1,359/1,210)	0.81 (0.38, 1.23)	0.27 (-0.06, 0.60)
4 (n = 140/55)	2.08 (0.98, 3.18)	1.63 (0.47, 2.78)
Body mass index, kg/m ²		
< 25		
≥ 25	6.84 (6.47, 7.21)	5.15 (4.87, 5.44)
Nutritional intake		
Total energy intake, kcal/day	0.001 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.10)	-0.072 (-0.088, -0.055)
Smoking		
None		
Past	0.42 (-0.080, 0.92)	0.57 (-0.13, 1.28)
Current	0.24 (-0.20, 0.68)	-0.36 (-0.84, 0.13)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.43 (0.046, 0.81)	0.42 (0.21, 0.64)
Physical activity, MET-min/week	0.0001 (0.00007, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.02 (0.38, 1.66)	0.94 (0.53, 1.34)
High school	1.42 (0.84, 2.01)	1.29 (0.88, 1.69)
≥College	1.61 (1.01, 2.21)	1.04 (0.59, 1.49)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00005, 0.001)
Occupation		
No		
Yes	0.58 (0.18, 0.98)	0.10 (-0.12, 0.32)
Survey year		
2008		
2009	-0.63 (-1.18, -0.073)	-0.039 (-0.41, 0.329)
2010	-1.44 (-2.04, -0.83)	-0.86 (-1.27, -0.45)
2011	-0.24 (-1.01, 0.53)	-0.18 (-0.64, 0.29)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 30 ng/mL and calcium intake < 700 mg

Group 2: 25-hydroxy vitamin D \geq 30 ng/mL and calcium intake < 700 mg

Group 3: 25-hydroxy vitamin D < 30 ng/mL and calcium intake \geq 700 mg

Group 4: 25-hydroxy vitamin D \geq 30 ng/mL and calcium intake \geq 700 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.



Table S3. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 10 ng/mL, recommended daily calcium intake: 800 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.12, -0.092)	-0.033 (-0.043, -0.022)
Group		
1 (n = 208/741)		
2 (n = 4,594/7,003)	1.73 (0.91, 2.54)	0.68 (0.15, 1.22)
3 (n = 37/61)	1.51 (-0.44, 3.46)	0.75 (-0.77, 2.27)
4 (n = 1,017/783)	2.51 (1.59, 3.43)	1.12 (0.48, 1.75)
Body mass index, kg/m ²		
< 25		
≥ 25	6.82 (6.45, 7.19)	5.14 (4.85, 5.43)
Nutritional intake		
Total energy intake, kcal/day	0.002 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.09)	-0.073 (-0.089, -0.056)
Smoking		
None		
Past	0.41 (-0.088, 0.91)	0.57 (-0.14, 1.27)
Current	0.29 (-0.15, 0.73)	-0.35 (-0.83, 0.14)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.39 (0.016, 0.76)	0.41 (0.19, 0.62)
Physical activity, MET-min/week	0.0001 (0.00007, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.00 (0.36, 1.64)	0.94 (0.53, 1.34)
High school	1.43 (0.86, 2.01)	1.29 (0.88, 1.69)
≥College	1.61 (1.02, 2.21)	1.05 (0.59, 1.50)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00005, 0.001)
Occupation		
No		
Yes	0.53 (0.12, 0.93)	0.09 (-0.12, 0.31)
Survey year		
2008		
2009	-0.64 (-1.20, -0.072)	-0.022 (-0.38, 0.338)
2010	-1.41 (-2.02, -0.80)	-0.84 (-1.25, -0.43)
2011	-0.18 (-0.95, 0.59)	-0.13 (-0.61, 0.34)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 10 ng/mL and calcium intake < 800 mg

Group 2: 25-hydroxy vitamin D \geq 10 ng/mL and calcium intake < 800 mg

Group 3: 25-hydroxy vitamin D < 10 ng/mL and calcium intake \geq 800 mg

Group 4: 25-hydroxy vitamin D \geq 10 ng/mL and calcium intake \geq 800 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.



Table S4. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 20 ng/mL, recommended daily calcium intake: 800 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.13, -0.094)	-0.032 (-0.043, -0.022)
Group		
1 (n = 2,630/5,497)		
2 (n = 2,172/2,247)	0.44 (0.028, 0.84)	0.14 (-0.11, 0.40)
3 (n = 576/588)	0.53 (-0.067, 1.13)	0.37 (-0.05, 0.80)
4 (n = 478/256)	1.68 (0.94, 2.42)	0.82 (0.17, 1.47)
Body mass index, kg/m ²		
< 25		
≥ 25	6.84 (6.47, 7.20)	5.14 (4.86, 5.43)
Nutritional intake		
Total energy intake, kcal/day	0.002 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.10)	-0.073 (-0.089, -0.056)
Smoking		
None		
Past	0.41 (-0.092, 0.91)	0.57 (-0.14, 1.27)
Current	0.27 (-0.17, 0.71)	-0.35 (-0.83, 0.13)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.38 (-0.001, 0.75)	0.43 (0.21, 0.64)
Physical activity, MET-min/week	0.0001 (0.00006, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.05 (0.41, 1.68)	0.94 (0.54, 1.35)
High school	1.47 (0.89, 2.05)	1.29 (0.88, 1.70)
≥College	1.68 (1.09, 2.27)	1.05 (0.60, 1.50)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00005, 0.001)
Occupation		
No		
Yes	0.55 (0.15, 0.96)	0.10 (-0.11, 0.32)
Survey year		
2008		
2009	-0.53 (-1.10, 0.037)	-0.018 (-0.39, 0.351)
2010	-1.33 (-1.94, -0.71)	-0.84 (-1.26, -0.43)
2011	-0.04 (-0.82, 0.74)	-0.15 (-0.62, 0.33)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 20 ng/mL and calcium intake < 800 mg

Group 2: 25-hydroxy vitamin D \geq 20 ng/mL and calcium intake < 800 mg

Group 3: 25-hydroxy vitamin D < 20 ng/mL and calcium intake \geq 800 mg

Group 4: 25-hydroxy vitamin D \geq 20 ng/mL and calcium intake \geq 800 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.



Table S5. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 30 ng/mL, recommended daily calcium intake: 800 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.12, -0.092)	-0.032 (-0.043, -0.021)
Group		
1 (n = 4,326/7,346)		
2 (n = 476/398)	0.14 (-0.44, 0.71)	0.18 (-0.30, 0.66)
3 (n = 948/804)	0.68 (0.19, 1.17)	0.42 (0.051, 0.80)
4 (n = 106/40)	2.64 (1.37, 3.90)	1.77 (0.42, 3.12)
Body mass index, kg/m ²		
< 25		
≥ 25	6.84 (6.47, 7.21)	5.15 (4.86, 5.44)
Nutritional intake		
Total energy intake, kcal/day	0.002 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.10)	-0.072 (-0.089, -0.056)
Smoking		
None		
Past	0.42 (-0.079, 0.92)	0.57 (-0.13, 1.28)
Current	0.25 (-0.19, 0.69)	-0.37 (-0.85, 0.12)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.42 (0.038, 0.79)	0.43 (0.21, 0.64)
Physical activity, MET-min/week	0.0001 (0.00007, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.03 (0.39, 1.67)	0.93 (0.53, 1.34)
High school	1.45 (0.86, 2.04)	1.28 (0.88, 1.69)
≥College	1.63 (1.02, 2.23)	1.04 (0.59, 1.49)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00005, 0.001)
Occupation		
No		
Yes	0.57 (0.17, 0.98)	0.10 (-0.12, 0.32)
Survey year		
2008		
2009	-0.63 (-1.19, -0.069)	-0.038 (-0.41, 0.330)
2010	-1.43 (-2.03, -0.82)	-0.86 (-1.28, -0.45)
2011	-0.23 (-1.00, 0.55)	-0.18 (-0.64, 0.29)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 30 ng/mL and calcium intake < 800 mg

Group 2: 25-hydroxy vitamin D \geq 30 ng/mL and calcium intake < 800 mg

Group 3: 25-hydroxy vitamin D < 30 ng/mL and calcium intake \geq 800 mg

Group 4: 25-hydroxy vitamin D \geq 30 ng/mL and calcium intake \geq 800 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.



Table S6. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 10 ng/mL, recommended daily calcium intake: 1000 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.12, -0.092)	-0.033 (-0.043, -0.022)
Group		
1 (n = 222/778)		
2 (n = 5,122/7,397)	1.62 (0.83, 2.41)	0.70 (0.17, 1.23)
3 (n = 23/24)	1.11 (-1.31, 3.54)	1.47 (-0.86, 3.79)
4 (n = 489/389)	3.03 (2.01, 4.04)	0.96 (0.33, 1.58)
Body mass index, kg/m ²		
< 25		
≥ 25	6.82 (6.45, 7.19)	5.14 (4.86, 5.43)
Nutritional intake		
Total energy intake, kcal/day	0.002 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.09)	-0.071 (-0.087, -0.055)
Smoking		
None		
Past	0.41 (-0.090, 0.91)	0.57 (-0.14, 1.28)
Current	0.31 (-0.13, 0.75)	-0.35 (-0.83, 0.14)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.39 (0.017, 0.76)	0.40 (0.19, 0.61)
Physical activity, MET-min/week	0.0001 (0.00006, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.01 (0.36, 1.65)	0.95 (0.55, 1.36)
High school	1.44 (0.87, 2.02)	1.30 (0.89, 1.70)
≥College	1.64 (1.04, 2.23)	1.05 (0.60, 1.51)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00004, 0.001)
Occupation		
No		
Yes	0.54 (0.14, 0.95)	0.10 (-0.12, 0.31)
Survey year		
2008		
2009	-0.63 (-1.20, -0.067)	-0.018 (-0.38, 0.342)
2010	-1.40 (-2.02, -0.79)	-0.83 (-1.24, -0.42)
2011	-0.18 (-0.95, 0.58)	-0.13 (-0.60, 0.34)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 10 ng/mL and calcium intake < 1000 mg

Group 2: 25-hydroxy vitamin D \geq 10 ng/mL and calcium intake < 1000 mg

Group 3: 25-hydroxy vitamin D < 10 ng/mL and calcium intake \geq 1000 mg

Group 4: 25-hydroxy vitamin D \geq 10 ng/mL and calcium intake \geq 1000 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.



Table S7. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 20 ng/mL, recommended daily calcium intake: 1000 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.13, -0.094)	-0.032 (-0.043, -0.021)
Group		
1 (n = 2,936/5,801)		
2 (n = 2,408/2,374)	0.45 (0.060, 0.84)	0.17 (-0.08, 0.42)
3 (n = 270/284)	0.83 (0.041, 1.62)	0.31 (-0.19, 0.80)
4 (n = 242/129)	2.50 (1.57, 3.44)	0.60 (-0.18, 1.38)
Body mass index, kg/m ²		
< 25		
≥ 25	6.83 (6.46, 7.19)	5.15 (4.86, 5.43)
Nutritional intake		
Total energy intake, kcal/day	0.002 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.10)	-0.071 (-0.087, -0.055)
Smoking		
None		
Past	0.40 (-0.095, 0.90)	0.57 (-0.13, 1.28)
Current	0.27 (-0.17, 0.71)	-0.35 (-0.83, 0.13)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.38 (0.001, 0.75)	0.42 (0.20, 0.63)
Physical activity, MET-min/week	0.0001 (0.00006, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.06 (0.43, 1.70)	0.95 (0.55, 1.36)
High school	1.49 (0.91, 2.07)	1.30 (0.89, 1.71)
≥College	1.71 (1.12, 2.29)	1.06 (0.60, 1.51)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00004, 0.001)
Occupation		
No		
Yes	0.56 (0.16, 0.96)	0.10 (-0.12, 0.32)
Survey year		
2008		
2009	-0.53 (-1.10, 0.037)	-0.014 (-0.38, 0.356)
2010	-1.33 (-1.94, -0.71)	-0.83 (-1.25, -0.42)
2011	-0.06 (-0.84, 0.72)	-0.13 (-0.61, 0.34)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 20 ng/mL and calcium intake < 1000 mg

Group 2: 25-hydroxy vitamin D \geq 20 ng/mL and calcium intake < 1000 mg

Group 3: 25-hydroxy vitamin D < 20 ng/mL and calcium intake \geq 1000 mg

Group 4: 25-hydroxy vitamin D \geq 20 ng/mL and calcium intake \geq 1000 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.



Table S8. Linear regression analysis of changes in whole body total fat-free mass by group (serum vitamin D level cutoff: 30 ng/mL, recommended daily calcium intake: 1000 mg)

Characteristics	Men	Women
Age, years	-0.11 (-0.12, -0.091)	-0.032 (-0.043, -0.021)
Group		
1 (n = 4,820/7,760)		
2 (n = 524/415)	0.44 (-0.15, 1.03)	0.24 (-0.23, 0.70)
3 (n = 454/390)	1.33 (0.69, 1.98)	0.31 (-0.12, 0.74)
4 (n = 58/23)	1.88 (0.48, 3.28)	1.27 (-0.71, 3.25)
Body mass index, kg/m ²		
< 25		
≥ 25	6.84 (6.47, 7.21)	5.15 (4.87, 5.44)
Nutritional intake		
Total energy intake, kcal/day	0.002 (0.001, 0.002)	0.0009 (0.0007, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.14, -0.09)	-0.070 (-0.086, -0.054)
Smoking		
None		
Past	0.41 (-0.089, 0.91)	0.58 (-0.13, 1.28)
Current	0.25 (-0.18, 0.69)	-0.36 (-0.84, 0.12)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.40 (0.030, 0.78)	0.41 (0.20, 0.63)
Physical activity, MET-min/week	0.0001 (0.00006, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.03 (0.38, 1.67)	0.94 (0.54, 1.35)
High school	1.46 (0.87, 2.05)	1.29 (0.88, 1.70)
≥College	1.65 (1.05, 2.25)	1.05 (0.59, 1.50)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00004, 0.001)
Occupation		
No		
Yes	0.58 (0.18, 0.99)	0.10 (-0.12, 0.32)
Survey year		
2008		
2009	-0.62 (-1.18, -0.053)	-0.035 (-0.40, 0.333)
2010	-1.41 (-2.02, -0.80)	-0.86 (-1.27, -0.44)
2011	-0.22 (-1.00, 0.55)	-0.17 (-0.63, 0.30)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).



Group 1: 25-hydroxy vitamin D < 30 ng/mL and calcium intake < 1000 mg

Group 2: 25-hydroxy vitamin D \geq 30 ng/mL and calcium intake < 1000 mg

Group 3: 25-hydroxy vitamin D < 30 ng/mL and calcium intake \geq 1000 mg

Group 4: 25-hydroxy vitamin D \geq 30 ng/mL and calcium intake \geq 1000 mg

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.

**Table S9.** Linear regression analysis of changes in whole body total fat-free mass according to serum vitamin D level and daily calcium intake

Characteristics	Men	Women
Age, years	-0.11 (-0.13, -0.10)	-0.034 (-0.044, -0.023)
25-hydroxy vitamin D, ng/mL	0.061 (0.035, 0.086)	0.023 (0.003, 0.043)
Calcium intake, g	1.13 (0.59, 1.68)	0.62 (0.067, 1.16)
Body mass index, kg/m ²		
< 25		
≥ 25	6.83 (6.46, 7.20)	5.14 (4.85, 5.42)
Nutritional intake		
Total energy intake, kcal/day	0.001 (0.001, 0.002)	0.0009 (0.0006, 0.001)
Water intake/body weight, g/kg/day	-0.12 (-0.15, -0.10)	-0.076 (-0.093, -0.058)
Smoking		
None		
Past	0.39 (-0.11, 0.89)	0.57 (-0.14, 1.27)
Current	0.29 (-0.15, 0.74)	-0.33 (-0.81, 0.16)
Alcohol drinking		
<1 time/month		
≥1 time/month	0.37 (-0.006, 0.75)	0.42 (0.20, 0.63)
Physical activity, MET-min/week	0.0001 (0.00005, 0.0002)	0.0002 (0.0001, 0.0002)
Education		
≤Elementary school		
Middle school	1.04 (0.39, 1.68)	0.92 (0.52, 1.33)
High school	1.49 (0.91, 2.07)	1.28 (0.87, 1.69)
≥College	1.70 (1.11, 2.29)	1.04 (0.58, 1.49)
Average monthly household income, 10000 KRW	0.002 (0.001, 0.003)	0.0005 (0.00005, 0.001)
Occupation		
No		
Yes	0.49 (0.080, 0.89)	0.11 (-0.11, 0.32)
Survey year		
2008		
2009	-0.43 (-0.99, 0.132)	0.024 (-0.34, 0.39)
2010	-1.21 (-1.82, -0.59)	-0.80 (-1.22, -0.39)
2011	0.12 (-0.67, 0.90)	-0.07 (-0.55, 0.40)

MET, Metabolic Equivalent Task; KRW, Korea Republic Won

Data are presented as beta coefficient (95% confidence interval).

^aMultivariable model adjusted for age, body mass index status, total energy intake, water intake per body weight, smoking, alcohol drinking, physical activity, education, income, occupation, and survey year.