

Table S1. Association between physical activity and NAFLD

Variable (MET-minute/week)	Case number	Control number(%)	Univariate model OR (95% CI)	Multivariate model 1 aOR (95% CI)	Multivariate model 2 aOR (95% CI)	Multivariate model 3 aOR (95% CI)
Total amount of						
≤1620	182 (33.5)	152 (28)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
1620~3943.8	180 (33.1)	200(36.8)	0.75(0.56-1.01)	0.72 (0.52-1.00)	0.72(0.52-1.01)	0.74(0.53-1.03)
>3943.8	181(33.3)	191(35.2)	0.79 (0.59-1.06)	0.75 (0.54-1.05)	0.76(0.54-1.07)	0.79(0.56-1.11)
<i>P</i> value for trend			0.13	0.11	0.13	0.19
Light intensity						
≤840	183 (33.7)	193 (35.5)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
840~2100	185 (34.1)	196(36.1)	1.00 (0.75-1.32)	0.97(0.70-1.34)	0.98 (0.71-1.35)	1.00(0.73-1.39)
>2100	175 (32.2)	154 (28.4)	1.20 (0.89-1.61)	1.22(0.88-1.71)	1.26(0.90-1.77)	1.32(0.94-1.86)
<i>P</i> value for trend			0.24	0.24	0.19	0.12
Moderate intensity						
None	223 (41.1)	193 (35.5)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
≤840	163 (30.0)	163 (30.0)	0.87(0.65-1.16)	0.89 (0.64-1.23)	0.89 (0.64-1.24)	0.91(0.65-1.26)
>840	157 (28.9)	187 (34.4)	0.73 (0.55-0.97) a	0.80 (0.58-1.10)	0.81(0.59-1.12)	0.85(0.61-1.19)
<i>P</i> value for trend			0.03	0.17	0.21	0.34
Vigorous intensity						
none	432 (79.6)	400 (73.7)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
≤960	32 (5.9)	46(8.5)	0.64 (0.40-1.03)	0.70 (0.41-1.20)	0.70(0.41-1.20)	0.69(0.40-1.18)
>960	79 (14.5)	97 (17.9)	0.75 (0.54-1.05)	0.67 (0.47-0.97) a	0.68 (0.47-0.98) a	0.64(0.44-0.93) a
<i>P</i> value for trend			0.04	0.02	0.02	0.06

NAFLD: Non-alcoholic fatty liver disease

Multivariate model 1: adjusted for BMI, hypertension, diabetes, and fasting blood glucose

Multivariate model 2: adjusted for BMI, hypertension, diabetes, fasting blood glucose and sedentary time.

Multivariate model 3: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and energy intake.

ORs = odds ratios, aOR= adjusted odds ratios, CIs = confidence intervals

a: P<0.05

Table S2. Association between physical activity and NAFLD in female

Variable (MET-minute/week)	Case number	Control number(%)	Univariate model OR (95% CI)	Multivariate model 1 aOR (95% CI)	Multivariate model 2 aOR (95% CI)	Multivariate model 3 aOR (95% CI)
Total amount of						
≤3010.2	58 (33.7)	57 (33.1)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
3010.2~5833.8	65 (37.8)	58(33.7)	1.10(0.66-1.83)	0.72 (0.40-1.30)	0.73 (0.40-1.32)	0.73(0.40-1.31)
>5833.8	49(28.5)	57(33.1)	0.85 (0.50-1.43)	0.71 (0.39-1.30)	0.73 (0.40-1.36)	0.72(0.39-1.33)
<i>P</i> value for trend			0.55	0.27	0.32	0.29
Light intensity						
≤1575	57 (33.1)	60 (34.9)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
1575~3150	66(38.4)	66(38.4)	1.05 (0.64-1.73)	0.85(0.48-1.50)	0.87 (0.49-1.55)	0.88(0.50-1.57)
>3150	49 (28.5)	46 (26.7)	1.12 (0.65-1.93)	0.75(0.40-1.41)	0.77(0.41-1.48)	0.76(0.40-1.46)
<i>P</i> value for trend			0.68	0.36	0.44	0.41
Moderate intensity						
≤840	72 (41.9)	67 (39)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
840~1984.8	50 (29.1)	48 (27.9)	0.97 (0.58-1.63)	0.81 (0.44-1.47)	0.82 (0.45-1.51)	0.82(0.45-1.50)
>1984.8	50 (29.1)	57 (33.1)	0.82 (0.49-1.35)	0.78 (0.44-1.38)	0.80 (0.45-1.42)	0.80(0.45-1.43)
<i>P</i> value for trend			0.44	0.38	0.43	0.44
Vigorous intensity						
none	160 (93)	149 (86.6)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
yes	12 (7)	23 (13.4)	0.49 (0.23-1.01)	0.77 (0.34-1.76)	0.77 (0.34-1.76)	0.77(0.34-1.74)

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Multivariate model 1: adjusted for BMI, hypertension , diabetes, and fasting blood glucose

Multivariate model 2: adjusted for BMI, hypertension, diabetes, fasting blood glucose and sedentary time.

Multivariate model 3: adjusted for BMI, hypertension, diabetes, fasting blood glucose , sedentary time and energy intake.

ORs = odds ratios, aOR= adjusted odds ratios, CIs = confidence intervals

TableS3. the distribution of the three energy nutrients in the case and the control in males

Variable	case	control	z	p
Energy intake (Kilojoule)	2456.70 (2074.46-2856.50)	2364.34 (1933.76-2789.0)	-2.42	0.02 ^a
Carbohydrate(g)	349.64 (276.77-429.11)	349.45 (261.89-427.34)	-0.90	0.37
Fat(g)	79.37 (66.86-93.67)	71.97 (61.19-84.63)	-4.87	<0.001 ^a
Protein(g)	77.96 (65.05-93.07)	75.00 (62.38-91.73)	-2.00	0.05

a:P<0.05

TableS4. the distribution of the three energy nutrients in the case and the control in females

Variable	case	control	z	p
Energy intake (Kilojoule)	1755.38(1540.99-2065.81)	1669.87(1468.99-2014.09)	-1.71	0.09
Carbohydrate(g)	228.70(183.64-270.82)	233.72(194.89-278.61)	-1.19	0.23
Fat(g)	67.29(58.74-80.90)	57.90(49.91-67.89)	-5.45	<0.001 ^a
Protein(g)	57.44(49.57-68.92)	57.07(47.44-68.26)	-0.40	0.69

a:P<0.05

Table S5. Association between physical activity and NAFLD in male

Variable (MET-minute/week)	Case number (%)	Control number(%)	Multivariate model 1 aOR (95% CI)	Multivariate model 2 aOR (95% CI)	Multivariate model3 aOR (95% CI)	Multivariate model 4 aOR (95% CI)
Total amount of						
≤1440	153 (41.2)	124 (33.4)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
1440~3180	104 (28.0)	124(33.4)	0.62 (0.41-0.91)^a	0.62 (0.41-0.93)^a	0.60 (0.40-0.91)^a	0.61(0.41-0.91)^a
>3180	114(30.7)	123(33.2)	0.60(0.40-0.91)^a	0.61 (0.41-0.92)^a	0.58 (0.39-0.88)^a	0.60(0.40-0.89)^a
<i>P</i> value for trend			0.01	0.02	0.01	0.01
Light intensity						
≤525	121 (32.6)	125 (33.7)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
525~1500	127(34.2)	125(33.7)	1.03(0.69-1.55)	1.01(0.68-1.52)	1.05 (0.70-1.57)	1.02(0.68-1.52)
>1500	123 (33.2)	121 (32.6)	0.95(0.63-1.44)	0.96(0.64-1.45)	0.94(0.62-1.41)	0.94(0.63-1.42)
<i>P</i> value for trend			0.82	0.85	0.75	0.79
Moderate intensity						
None	204 (55)	170 (45.8)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
≤684	74 (19.9)	79 (21.3)	0.78(0.51-1.20)	0.79 (0.51-1.20)	0.79 (0.51-1.22)	0.78(0.51-1.20)
>684	93 (25.1)	122 (32.9)	0.58(0.40-0.86)^a	0.58 (0.39-0.86)^a	0.60(0.40-0.88)^a	0.58(0.40-0.86)^a
<i>P</i> value for trend			0.01	0.01	0.01	0.01
Vigorous intensity						
none	272 (73.3)	251 (67.7)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
≤960	28 (7.5)	35(9.4)	0.77(0.42-1.41)	0.78(0.42-1.43)	0.77(0.39-1.30)	0.76(0.41-1.39)
>960	71 (19.1)	85 (22.9)	0.63(0.41-0.95)^a	0.64 (0.43-0.97)^a	0.61(0.40-0.92)^a	0.62(0.41-0.93)^a
<i>P</i> value for trend			0.02	0.03	0.02	0.02

NAFLD: Non-alcoholic fatty liver disease

Multivariate model 1: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and total energy intake

Multivariate model 2: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and carbohydrate

Multivariate model 3: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and fat

Multivariate model 4: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and protein

ORs = odds ratios, aOR= adjusted odds ratios, CIs = confidence intervals

a: P<0.05

Table S6. Association between physical activity and NAFLD in female

Variable (MET-minute/week)	Case number	Control number(%)	Multivariate model 1 aOR (95% CI)	Multivariate model 2 aOR (95% CI)	Multivariate model3 aOR (95% CI)	Multivariate model 4 aOR (95% CI)
Total amount of						
≤3010.2	58 (33.7)	57 (33.1)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
3010.2~5833.8	65 (37.8)	58(33.7)	0.73(0.40-1.31)	0.74 (0.41-1.35)	0.80 (0.44-1.48)	0.73(0.40-1.32)
>5833.8	49(28.5)	57(33.1)	0.72(0.39-1.33)	0.75 (0.41-1.40)	0.75 (0.40-1.40)	0.74(0.40-1.36)
<i>P</i> value for trend			0.29	0.38	0.37	0.32
Light intensity						
≤1575	57 (33.1)	60 (34.9)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
1575~3150	66(38.4)	66(38.4)	0.88(0.50-1.57)	0.87(0.49-1.56)	1.02 (0.56-1.84)	0.86(0.48-1.54)
>3150	49 (28.5)	46 (26.7)	0.76(0.40-1.46)	0.80(0.42-1.52)	0.80(0.41-1.55)	0.77(0.41-1.48)
<i>P</i> value for trend			0.41	0.36	0.53	0.43
Moderate intensity						
≤840	72 (41.9)	67 (39)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
840~1984.8	50 (29.1)	48 (27.9)	0.82(0.45-1.50)	0.84 (0.46-1.53)	0.87(0.47-1.61)	0.79(0.44-1.41)
>1984.8	50 (29.1)	57 (33.1)	0.80(0.45-1.43)	0.80 (0.45-1.43)	0.87 (0.48-1.56)	1.00(0.99-1.01)
<i>P</i> value for trend			0.44	0.45	0.63	0.42
Vigorous intensity						
none	160 (93)	149 (86.6)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
yes	12 (7)	23 (13.4)	0.77(0.34-1.74)	0.77 (0.34-1.75)	0.72 (0.31-1.66)	0.78(0.34-1.79)

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Multivariate model 1: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and total energy intake

Multivariate model 2: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and carbohydrate

Multivariate model 3: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and fat

Multivariate model 4: adjusted for BMI, hypertension, diabetes, fasting blood glucose, sedentary time and protein

ORs = odds ratios, aOR= adjusted odds ratios, CIs = confidence intervals