

Table G9.A4. Body Composition, Prospective Cohort Studies

Reference	Subjects/Follow-up	Results
Moore et al., 1995 (1)	N=97, 4 years, Follow-up: to 1st grade	Children with low levels of PA gained more fat, but not strong effect
Luepker et al., 1996 (2)	N=4,019, 3rd-5th graders, Follow-up: 2 years	CATCH school-based intervention did not affect adiposity
Nader et al., 1999 (3)	N=3,714, 3rd, 5th, 8th graders, Follow-up: 3rd, 5th, 8th grade	CATCH school-based intervention did not affect adiposity
Berkey et al., 2000 (4)	N=10,769, 57% F, 9-14 years, 94% white, Follow-up: 1 year	Small estimated changes in BMI
O'Loughlin, 2000 (5)	N=2,951, 51% F, 10.3 years, Follow-up: 1 and 2 years	Suggest role for PA in prevention of excess weight gain
Berkey et al., 2003 (6)	N=10,896, 57% F, 9-14 years, 94% white, Follow-up: 1 year	Small estimated changes in BMI
Bogaert et al., 2003 (7)	N=59 49% F, 6-9 years, Follow-up: 1 year	No correlation between time in PA and BMI
Crocker et al., 2003 (8)	N=631, 100% F, 15-16 years, Follow-up: 1 year	Low correlation between PA and BMI
Moore et al., 2003 (9)	N=103, 3-5 years, Follow-up: 8 years	Children with high levels of PA had less fat and lower BMI
Stevens et al., 2004 (10)	N=454, 49% F, 7.5±0.6 years, 100% American Indian, Follow-up: 3 years	Higher PA associated with lower percent fat in normal weight but not in overweight
Elgar et al., 2005 (11)	N=355, 55% F, 11-14 years, Follow-up: 4 years	PA predicted change in BMI over time
Jago et al., 2005 (12)	N=133, 51% F, 3-4 years, 37% white, 37% AA, 26% Hispanic	Stronger impact of TV viewing than PA on BMI
Kettaneh et al., 2005 (13)	N=436, 49% F, 8-18 years, Follow-up: 2 years	Small effect of PA on adiposity measures in females, not males
Monda & Popkin, 2005 (14)	N=1,175, 46% F, 9.7±2.2 years, 100% Asian, Follow-up: 3 years	Results indicate interaction of PA and inactivity as risk factors for overweight
Gidding et al., 2006 (15)	N=585, 45% F, 8-10 years, Follow-up: 3 years	Non-significant trend for lower BMI and time spent in intense PA
Mundt et al., 2006 (16)	N=217, 52% F, 8-15 years, 89% white, Follow-up: 7 years	PA level negatively associated with fat mass development in males, not in Females
Rosenberg et al., 2006 (17)	N=1,083, 47% F, 4th-5th grade, 85% white, Follow-up: 2 years	No relationship between active commuting and BMI change
Yang et al., 2006 (18)	N=1,319, 53% F, 9-39 years, Follow-up: 21 years	High levels of PA during youth associated with lower waist circumference in adult Females, not Males
Ekelund et al., 2007 (19)	N=28, 17-21 years, Follow-up: 4 years	Small percentage of variance in fat mass change explained by PA change in normal weight group
Li et al., 2007(20)	N=210, 54% F, 9-11 years, Follow-up: 8 months	Mixed results, small differences, perhaps a sex difference
O'Brien et al., 2007 (21)	N=653, 2-12 years, Follow-up: 10 years	Children with more PA and less TV were less likely to be overweight

AA, African American; BMI, body mass index; F, female; N, number; PA, physical activity

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