

Physical Inactivity & Unhealthy Weight Control Behaviors and Academic Achievement

What is the relationship between physical inactivity and unhealthy weight control behaviors and academic achievement?

Data presented below, from the 2003 National Youth Risk Behavior Survey (YRBS), show a negative association between physical inactivity and unhealthy weight control behaviors and academic achievement after controlling for sex, race/ethnicity, and grade level. This means that students with higher grades are less likely to engage in physical inactivity and unhealthy weight control behaviors than their classmates with lower grades, and students who do not engage in physical inactivity and unhealthy weight control behaviors receive higher grades than their classmates who do engage in physical inactivity and unhealthy weight control behaviors. These associations do not prove causation. Further research is needed to determine whether low grades lead to physical inactivity and unhealthy weight control behaviors, physical inactivity and unhealthy weight control behaviors lead to low grades, or some other factors lead to both of these problems.

Students with higher grades are significantly less likely to have engaged in behaviors such as:

- **Insufficient vigorous physical activity** (Did not participate in physical activities that made them sweat and breathe hard¹ for 20 or more minutes on three or more of the 7 days preceding the survey).
- **Watched television 3 or more hours per day** (On an average school day).
- **Played video games 3 or more hours per day** (On an average school day).
- **Took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight** (During the 30 days before the survey).

Percentage of U.S. high school students receiving mostly A's, B's, C's, or D/F's who engaged in physical inactivity or unhealthy weight control behaviors, by type of grades earned – National Youth Risk Behavior Survey, 2003.

Physical Inactivity and Unhealthy Weight Control Behaviors	Percentage of U.S. high school students who received mostly			
	A's	B's	C's	D/F's
Physical Inactivity				
Insufficient moderate physical activity (Did not participate in physical activities that did not make them sweat or breathe hard ² for 30 or more minutes on five or more of the 7 days preceding the survey) ³	73	74	78	80
Insufficient vigorous physical activity (Did not participate in physical activities that made them sweat and breathe hard ¹ for 20 or more minutes on three or more of the 7 days preceding the survey) ⁴	33	36	40	45
Did not play on at least one sports team (Run by their school or community groups during the 12 months before the survey) ⁴	32	41	50	59
Watched television 3 or more hours per day (On an average school day) ⁴	28	39	45	47
Played video games 3 or more hours per day (On an average school day) ⁴	16	23	25	30
Unhealthy Weight Control Behaviors				
Did not eat for 24 or more hours to lose weight or to keep from gaining weight (During the 30 days before the survey) ⁴	10	13	16	21
Took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight (During the 30 days before the survey) ⁵	7	9	11	15

¹ e.g., basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activity.

² e.g., fast walking, slow bicycling, skating, pushing a lawn mower, or mopping floors.

³ p<.01 based on logistic regression analysis controlling for sex, race/ethnicity, and grade level.

⁴ p<.0001 based on logistic regression analysis controlling for sex, race/ethnicity, and grade level.

⁵ p<.001 based on logistic regression analysis controlling for sex, race/ethnicity, and grade level.

Figure 1. Percentage of U.S. high school students receiving mostly A's, B's, C's, or D/F's who did not eat for 24 or more hours and took diet pills, powders, or liquids to lose weight or keep from gaining weight—Youth Risk Behavior Survey, 2003.

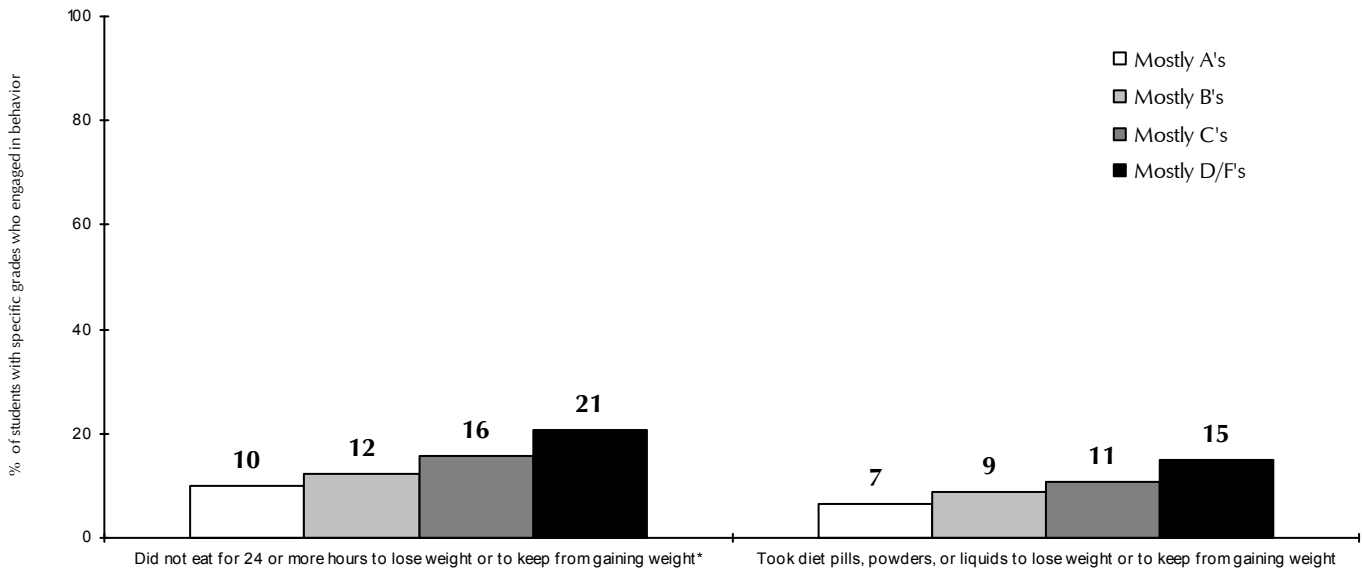
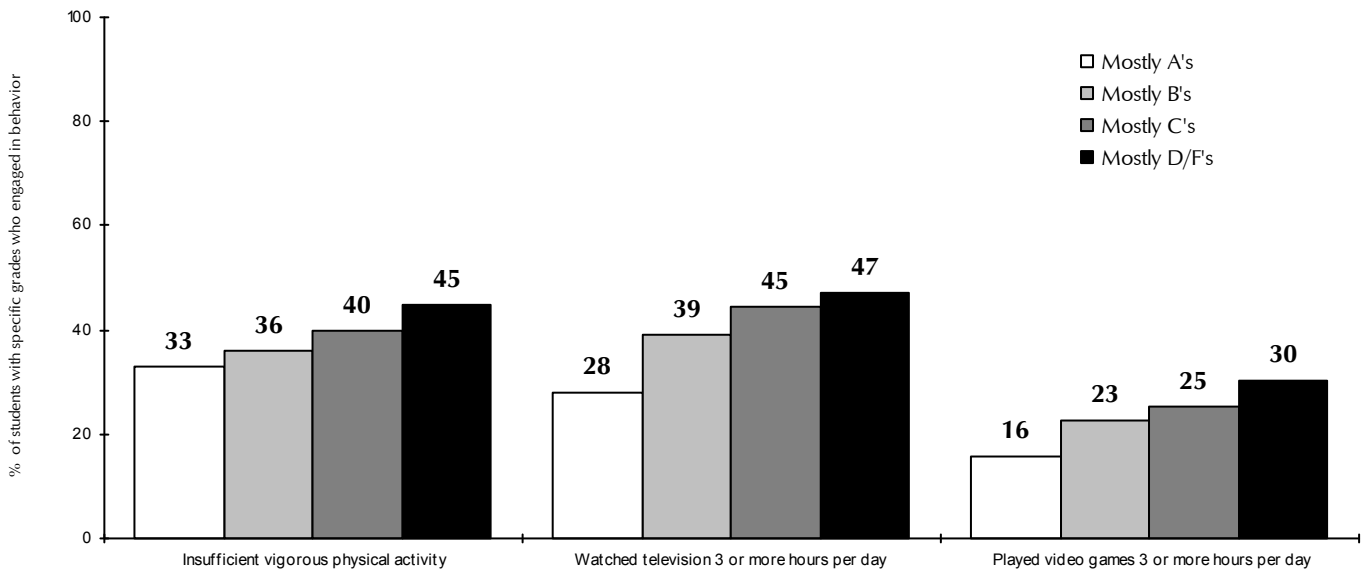


Figure 2. Percentage of U.S. high school students receiving mostly A's, B's, C's, or D/F's who had insufficient vigorous physical activity, watched television 3 or more hours per day, and played video games 3 or more hours per day—Youth Risk Behavior Survey, 2003.



*This means that 10% of students with mostly A's did not eat for 24 or more hours to lose weight or to keep from gaining weight and 21% of students with mostly D's or F's did not eat for 24 or more hours to lose weight or to keep from gaining weight.

The national YRBS monitors priority health-risk behaviors that contribute to the leading causes of death, disability, and social problems among youth and adults in the United States. It is conducted every two years during the spring and provides data representative of 9th through 12th grade students in public and private schools throughout the United States. In 2003, students completing the YRBS were asked, "During the past 12 months, how would you describe your grades in school?" and given 7 response options (Mostly A's, Mostly B's, Mostly C's, Mostly D's, Mostly F's, None of these grades, Not sure). In 2003, 27% of students received mostly A's, 38% received mostly B's, 23% received mostly C's, 6% received mostly D's or F's, and 5% reported receiving none of these grades or not sure.

For more information visit http://www.cdc.gov/HealthyYouth/health_and_academics/ or call 800-CDC-INFO (800-232-4636).



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