

Making the Connection: Dietary Behaviors and Academic Grades

Data from the 2019 national Youth Risk Behavior Survey (YRBS) show that students with higher academic grades are more likely to engage in healthy dietary behaviors compared to students with lower grades. It is important to remember that these associations do not prove causation. School health professionals, school officials, and other decision makers can use this fact sheet to better understand the associations between healthy dietary behaviors and grades and reinforce policies and practices that support healthy eating in schools.

Key Findings

Compared to students with lower grades, **students with higher grades are more likely to**



- Eat breakfast on all 7 days.
- Eat fruit or drink 100% fruit juice one or more times per day

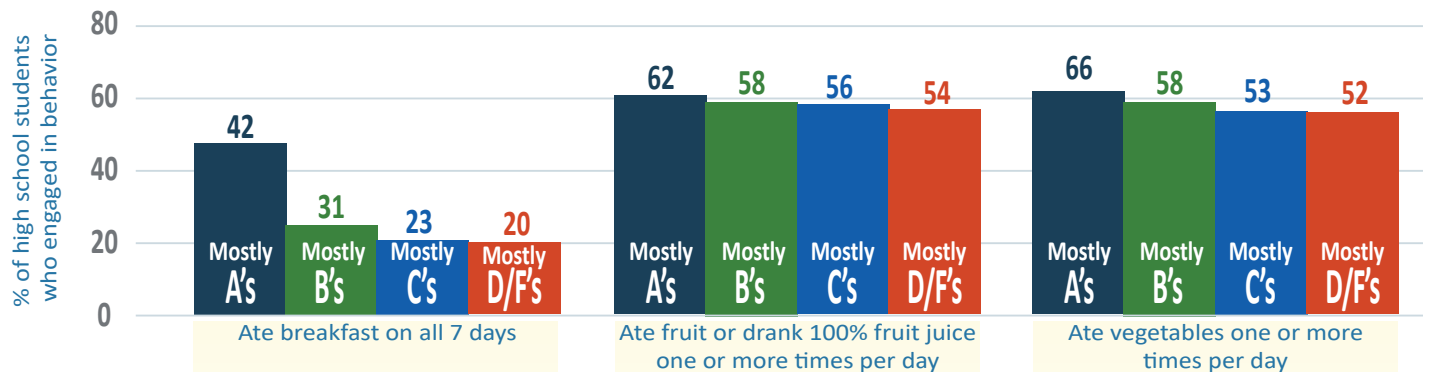


- Eat vegetables one or more times per day.
- Not drink a can, bottle, or glass of soda or pop.

The findings do not show that academic grades are associated with drinking one or more glasses per day of milk.

FIGURE 1A

Dietary Behaviors, by Type of Academic Grades Earned
- United States, Youth Risk Behavior Survey, 2019



SUMMARY



42% of US high school students with mostly A's **ate breakfast on all 7 days**, (during the 7 days before the survey) compared to **20%** of students with mostly D/F's.

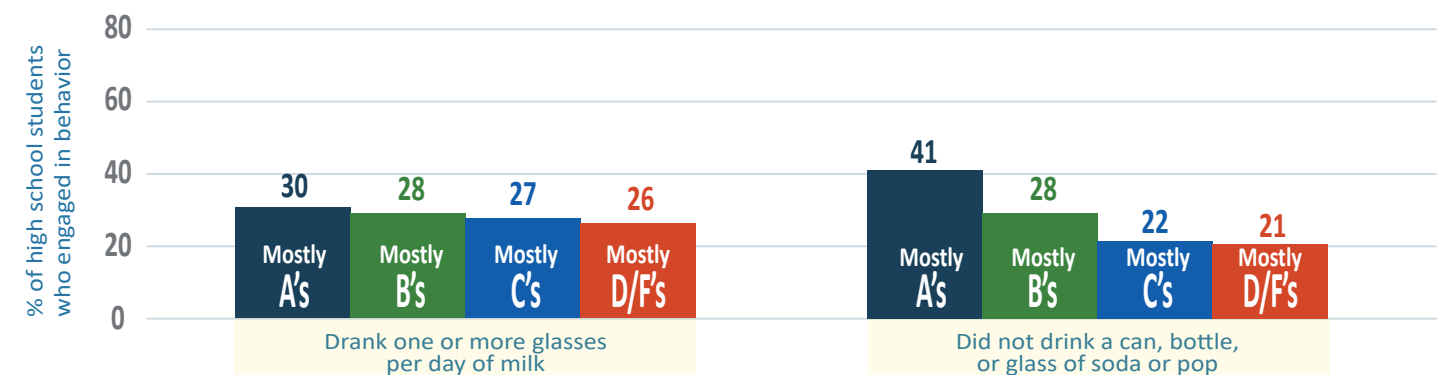
62% of US high school students with mostly A's **ate fruit or drank 100% fruit juices one or more times per day** (during the 7 days before the survey), compared to only **54%** of students with D/F's.

66% of US high school students with mostly A's **ate vegetables** (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey compared to only **52%** of students with mostly D/F's.

*Figure 1A and Figure 1B illustrate the percentage of students who engaged in each health-related behavior, by type of grades mostly earned in school (mostly A's, B's, C's, D's/F's) (row proportions). The percentage of students who did not engage in each health-related behavior are not shown. However, the percentages of students who did and did not engage in each health-related behavior, by type of grades mostly earned in school, sum to 100%. Logistic regression analyses (not shown) controlling for sex, race/ethnicity, and grade in school confirmed a significant association between dietary behaviors and academic grades.

FIGURE 1B

Dietary Behaviors, by Type of Academic Grades Earned
- United States, Youth Risk Behavior Survey, 2019



SUMMARY



30% of US high school students with mostly A's **drank one or more glasses per day of milk** (during the 7 days before the survey), compared to **26%** of students with mostly D/F's.

41% of US high students with mostly A's **did not drink a can, bottle, or glass of soda or pop** (did not drink a can, bottle, or glass of soda or pop), compared to **21%** of students with mostly D/F's.

Conclusions

These results from the YRBS provide evidence of a significant association between academic grades and dietary behaviors. Further research is warranted to determine whether higher grades in school lead to healthy dietary behaviors, if healthy dietary behaviors lead to higher grades, or some other factors lead to these dietary behaviors.

There is a close relationship between health and education. By working together, education and health agencies, parents, and communities can ensure that students are healthy and ready to learn in school. Find out more about the connection between health and academic achievement on [CDC's Healthy Schools Health and Academics website](#).

About the Data

The [Youth Risk Behavior Surveillance System](#) (YRBSS) 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 2 years during the spring and provides data representative of 9th through 12th grade students in public and private schools throughout the nation. In 2019, students completing the YRBS were asked, "During the past 12 months, how would you describe your grades in school?" and given seven response options (Mostly A's, Mostly B's, Mostly C's, Mostly D's, Mostly F's, None of these grades, Not sure). In 2019, 38.0% of students received mostly A's, 37.1% received mostly B's, 16.0% received mostly C's, 4.6% received mostly D's or F's, and 4.3% reported receiving none of these grades or not sure.



For more information, visit the [CDC's Healthy Schools website](#) or call 800-CDC-INFO (800-232-4636).