

Health & Academics

Linking Nutrition and Activity to Student Achievement

kids
CanDo
it!



Key Wellness Recommendations

To optimize both health and readiness to learn, students should adopt the following healthy lifestyle habits:

- Be active for at least **60 minutes** every day.
- Start each day with a healthy breakfast.
- Eat 3 to 4 cups of colorful fruits and vegetables daily.
- Limit soda and other sugary drinks.
- Be size wise – choose small portions of foods.
- Get 8.5 to 11 hours of sleep each night.
- Limit screen time (TV, video games, computer) to less than 2 hours a day.

Room for Improvement

- 75% of kids get less than 20 minutes of vigorous physical activity every day.¹⁰
- Less than 25% of adolescents eat enough fruits and vegetables each day.¹¹
- American children average nearly 3 hours of TV per day.¹²
- 56 to 85% of children in school drink at least one soft drink daily.¹³

The Learning Connection

Poor nutrition and physical inactivity not only lead to overweight and obesity, but they also have a negative impact on readiness to learn and academic achievement. A growing body of evidence is showing the connection between good nutrition, physical activity, healthy body weight, and student achievement.

Nutrition and Academics

- In a study of 4th graders, students with the lowest protein in their diets had the lowest achievement scores.⁴
- Children with iron deficiency anemia have shortened attention spans, irritability, fatigue, and difficulty with concentration. As a result, they do poorly in vocabulary, reading, and other tests.⁵
- Even moderate undernutrition (not getting enough food or not getting enough nutrients) can have lasting effects. It can negatively affect cognitive development and school performance.⁶

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- Participation in a school breakfast program improves academic, behavioral, and emotional functioning and leads to increased math grades and lower absenteeism.^{7,8}
- Children with poor nutrition during the brain's most formative years score much lower on vocabulary, reading comprehension, arithmetic, and general knowledge tests.⁹

The Impact of Childhood Obesity

Physical Health

- 70% of overweight adolescents will become obese adults.¹⁴
- Obesity is associated with increased risk for diabetes, heart disease, sleep apnea, asthma, and some types of cancer.¹⁵
- Kids who are overweight tend to have at least one medical problem like high blood pressure or asthma.¹⁰
- In a large study, 61% of overweight 5 to 10 year olds had risk factors for heart disease, and 26% had two or more risk factors.¹⁶

Emotional Health

- Overweight children are more likely to suffer from depression and experience teasing and isolation from their peers.¹⁷
- In a study where children ranked six drawings of children in order of how well they liked each child, the obese child drawing was ranked last.¹⁷

Financial Health

- In 2004, estimated costs related to overweight and obesity ranged from \$98 billion to \$129 billion.¹⁸
- School costs increase due to additional staff time needed to address academic, behavioral, and health problems related to childhood overweight.¹⁹



The Learning Connection (cont'd)

Physical Activity and Academics

- Academic achievement improves when kids spend more time in physical education, even when students spend less time in class! Consistently higher math scores were seen after 240 minutes per week of class time was exchanged for physical activity time.^{20,21, 22}
- A 2002 study of over 850,000 5th, 7th, and 9th graders showed an association between physical fitness and SAT-9 test results. Students with the highest fitness scores also had the highest test scores.²³
- Memory may be improved with aerobic conditioning. Exercise may strengthen certain areas of the brain, while oxygen intake during activity may enhance connections between neurons.²⁴
- Intense physical activity programs have shown improvements such as increased concentration, reduced disruptive behavior, and improvements in math, reading, and writing test scores.²⁵

Body Weight and Academics

Emerging evidence is showing a correlation between weight problems and lower academic achievement. Some attribute these findings to absenteeism.

- A recent scientific review of the literature concluded that childhood overweight and obesity were associated with poorer levels of academic achievement.²⁶
- Students with weight problems, poor nutrition, and physical inactivity have a higher incidence of psychological, social, and physical problems that frequently cause absenteeism.²⁷

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