

The Benefits of Breakfast: Health & Academics

Conventional wisdom tells us that breakfast is the most important meal of the day. Research shows that students benefit from eating breakfast in two primary ways. First, eating breakfast, particularly meals provided through the federal School Breakfast Program, has a positive effect on students' overall dietary health.¹ Second, there is significant evidence that eating breakfast has a positive effect on academics. Where there are robust school breakfast programs, students experience improvements in standardized test scores, school attendance, and other outcomes that help create positive learning environments.

Who's Eating Breakfast?

- From a nationally representative sample of over 4,000 children and adolescents ages 9-18:ⁱ
 - 1 in 5 children does not eat breakfast.
 - 32% of adolescents do not eat breakfast.
 - Low-income youth are more likely miss breakfast.
 - Minority youth living in urban environments are more likely to miss breakfast.ⁱⁱ
- Classroom Breakfast programs² greatly increase participation in school breakfast compared to conventional programs that serve school breakfast before the start of the school day.^{iii iv}

Student Health

Better Nutritional Intake

- School Breakfast Program participants consume less added sugar at breakfast than nonparticipants consume at breakfast.^v
- Students who participate in the School Breakfast Program consume more servings of fruit than nonparticipants, both at breakfast and throughout the day.^{vi}
- Breakfast eaters have higher daily intakes of micronutrients³ and are more likely to meet nutrient intake recommendations compared with breakfast skippers, particularly recommendations for:^{vii}
 - Vitamin A
 - Calcium
 - Vitamin C
 - Riboflavin
 - Zinc
 - Iron

¹ **The School Breakfast Program** (SBP) is a federal child nutrition program administrated at the national level by the United States Department of Agriculture.

² **Classroom Breakfast** is a model of serving school breakfast in which all students are offered breakfast in the classroom at the start of the school day.

³ **Micronutrients** are essential elements, such as vitamins and minerals, that are needed in very small quantities for optimal health.

- Children who eat school breakfast are more likely to meet the Recommended Dietary Allowances (RDA)⁴ for vitamin A, vitamin D, calcium, magnesium, thiamin, riboflavin and zinc compared to students who eat breakfast at home.^{viii}
- Compared to nonparticipants, students who eat school breakfast are more likely to:
 - Consume milk and are significantly less likely to consume beverages other than milk or 100% juice.^{ix}
 - Consume more milk, both at breakfast and throughout the day.^x
- Compared to those who do not eat breakfast, children and adolescents who eat breakfast tend to make healthier food choices throughout the day.^{xi}

Supporting Overall Health

- After the implementation of universal school breakfast⁵, school nurses report a decrease in student complaints of stomachaches and headaches.^{xii}
- Students in schools with universal school breakfast programs are less likely to skip breakfast due to concerns of body image or stigma of eating in the cafeteria.^{xiii}

Preventing Obesity and Type 2 Diabetes

- Breakfast consumption can increase the feeling of fullness throughout the morning. Compared to students who do not eat breakfast, those who eat a breakfast rich in protein, such as eggs, consume fewer calories at lunch. High-protein breakfasts may help regulate appetite throughout the day.^{xiv}
- In a nationally representative sample of children in grades 1-12, participation in the School Breakfast Program is significantly associated with healthier body weights and lower BMI⁶.^{xv}
- Eating breakfast frequently (especially daily consumption) may help to control appetite and blood sugar, which has important implications for the risk of obesity and type 2 diabetes.^{xvi}

Student Academics

Improved Learning Environments

- A Classroom Breakfast study, which examined over 50 schools in Maryland, more than 80 percent of teachers and non-teaching staff thought that implementing Classroom Breakfast improved the school learning environment.^{xvii}
- After the implementation of Classroom Breakfast, principals report that disciplinary suspensions decrease at their schools.^{xviii}

⁴ **Recommended Dietary Allowance** is the average dietary intake level of a nutrient required to prevent a deficiency in 98% of a population.

⁵ **Universal school breakfast programs** provide breakfast to all students free of charge, regardless of family income.

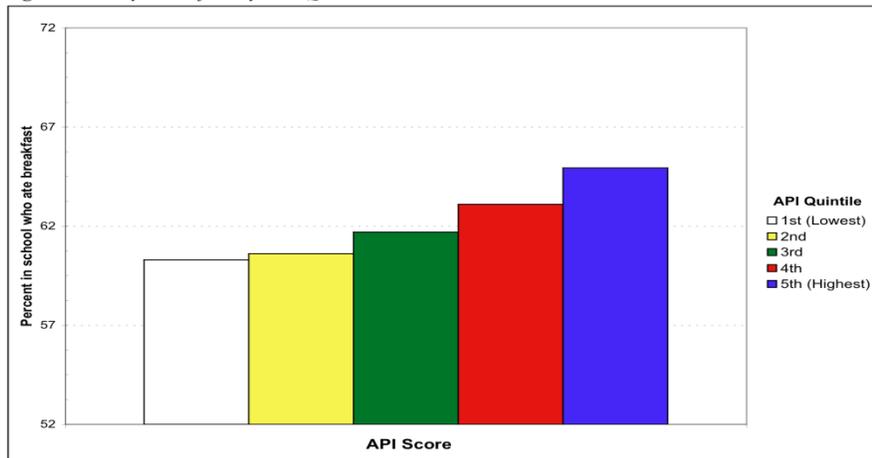
⁶ **BMI – Body Mass Index** is a measure of body weight relative to height.

- Students who eat breakfast report feeling more motivated at school than students who had no breakfast.^{xx}
- Food-insufficient children and teenagers are more likely to have difficulty getting along with their peers. Food-insufficient teenagers also have increased likelihood of being suspended from school.^{xx}

Higher Academic Achievement

- In a survey of students in grades 7, 9 and 11, schools with higher percentages of students who ate breakfast on the day of the survey also had higher Academic Performance Index⁷ scores (see Figure1).^{xxi}

Figure 1. Daily Breakfast by API Quintile



Source: Calculations based on the California Department of Education's Healthy Kids Survey and API database (1999-2001). Breakfast is measured by the percentage of students who reported eating breakfast on the day of the survey. Analytic sample consists of 1,395 schools.

- A study of the effects of universal school breakfast, through which all students are offered a school breakfast free of charge, found that math and reading achievement scores increased each year the program was in place.^{xxii}
- Compared to students whose participation in school breakfast either stayed the same or did not increase, students whose participation did increase had significantly higher increases in math grades.^{xxiii}
- After reviewing more than 100 studies and evaluations of the School Breakfast Program, researchers found that serving breakfast to children who don't get a morning meal elsewhere significantly improves their cognitive or mental abilities.^{xxiv}
- Breakfast consumption can increase cognitive performance, especially in young children.^{xxv}

⁷ **Academic Performance Index (API)** is a school-level, summary measure for California schools based on the national percentile ranking of student scores on the *Stanford 9 Achievement Test*.

- Visual perception and spatial memory ability, such as being able to copy an image or memorize the location of items on a map, significantly increased when students had breakfast compared to no breakfast.^{xxvi}
- Results for short-term memory test were better for students, particularly female students, who ate low glycemic index foods⁸, such as oatmeal, for breakfast compared to those who did not eat breakfast.^{xxvii}

Increased Attendance and Decreased Tardiness

- After the implementation of Classroom Breakfast, schools experience a decrease in tardiness^{xxviii} and improvements in attendance.^{xxix}
- After the implementation of the School Breakfast Program, schools experience improvements in attendance.^{xxx}
- The positive impact of breakfast on nutritional status can decrease rates of illness at school, consequently improving school attendance.^{xxxi}

Have questions?

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⁸ **Low glycemic index foods** produce smaller spikes in blood sugar and insulin levels, releasing glucose into the blood more steadily than high glycemic index foods.

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