



CHILD NUTRITION FACT SHEET

Food Research & Action Center

1875 Connecticut Ave. NW, Suite 540

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BREAKFAST FOR LEARNING

Recent scientific research on the link between children's nutrition and academic performance

“What we find particularly exciting is that this [school breakfast] is a relatively simple intervention that can significantly improve children's academic performance and psychological well-being.”

*J. Michael Murphy, EdD, School Breakfast Program researcher,
Massachusetts General Hospital and Harvard Medical School*

Missing breakfast and experiencing hunger impair children's ability to learn

- Children who skip breakfast are less able to distinguish among similar images, show increased errors, and have slower memory recall.^{1,2}
- Children experiencing hunger have lower math scores and are more likely to have to repeat a grade.³
- Behavioral, emotional and academic problems are more prevalent among children with hunger.⁴
- Children experiencing hunger are more likely to be hyperactive, absent and tardy, in addition to having behavioral and attention problems more often than other children.⁵
- Children who are undernourished score lower on cognitive tests when they miss breakfast.^{6,7}
- Teens experiencing hunger are more likely to have been suspended from school, have difficulty getting along with other children, and have no friends.⁸
- Children with hunger are more likely to have repeated a grade, received special education services, or received mental health counseling, than low-income children who do not experience hunger.⁹

Eating breakfast at school helps children perform better

- Children who eat a complete breakfast, versus a partial one, make fewer mistakes and work faster in math and number checking tests.¹⁰
- **Children who eat breakfast at school – closer to class and test-taking time – perform better on standardized tests than those who skip breakfast or eat breakfast at home.**¹¹
- **Providing breakfast to mildly undernourished students at school improves their speed and memory in cognitive tests.**^{12, 13}
- Children who eat breakfast show improved cognitive function, attention, and memory.¹⁴
- **Participating in school breakfast is associated with improved math grades, attendance and punctuality.**^{15, 16}
- Children perform better on tests of vocabulary and matching figures after eating breakfast.^{17, 18}
- Consuming breakfast improves children's performance on demanding mental tasks and reaction to frustration.¹⁹

School breakfast improves student behavior and learning environments

- Schools that provide breakfast in the classroom to all students show decreases in tardiness and suspensions as well as improved student behavior and attentiveness.^{20, 21}
- Providing students with breakfast in the classroom setting is associated with lower tardy rates and fewer disciplinary office referrals.²²
- School breakfast programs can lower absence and tardiness rates and improve standardized achievement test scores.²³

Universal school breakfast programs yield positive results

- Children who participate in universal school breakfast have lower rates of absence and tardiness.^{24, 25}
- Schools that provide universal school breakfast have higher breakfast participation, especially when breakfast is served in the classroom, and students who significantly increase their breakfast participation are more frequently on time and in attendance.²⁶
- Schools providing all students with free breakfast have greater positive changes in academic performance.²⁷

Breakfast can improve children's diets

- Children who eat breakfast tend to have more adequate nutrient intakes than children who do not.²⁸
- By eating breakfast, students also get more of important nutrients, vitamins and minerals such as calcium, dietary fiber, folate and protein.^{29,30}
- A higher percentage of children who skip breakfast do not meet two-thirds of the Recommended Dietary Allowance (RDA) for vitamins A, E, D, and B₆.³¹

Breakfast may reduce obesity risk

- Adolescents who eat breakfast tend to have a lower body mass index (BMI); higher BMIs can indicate overweight and obesity.³²
- Girls who eat breakfast are more likely to have a lower BMI than girls who skip breakfast.³³
- Adolescents with one or two obese parents who eat breakfast every day are more likely to have BMIs within a healthy range than those who tend to skip breakfast.³⁴
- Low-income elementary school girls who participate in the School Breakfast, School Lunch, or Food Stamp Programs, or any combination of these programs, have significantly less risk of being overweight.³⁵

Beliefs about breakfast can influence participation

- Girls often skip breakfast because they believe it might make them fat and are concerned about gaining weight.^{36, 37}
- Adolescents who skip breakfast are significantly more likely to have fasted to lose weight.³⁸
- Children report that they believe eating breakfast increases their energy and ability to pay attention in school.³⁹

Breakfast for Learning

Endnotes

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