

Start Smart. Eat Healthy.

The Benefits of Breakfast



A White Paper Developed by the
Florida Breakfast Partnership

Breakfast is often cited as the “most important meal of the day”, a statement often considered to be anecdotal in nature. However, a growing body of research associates regular breakfast consumption with a variety of health and other lifestyle benefits for children, adolescents, and adults.

Children and Adolescents

Children and adolescents who consume breakfast are more likely to have higher daily nutrient intakes and more healthful and adequate diets compared to breakfast skippers.^{1,2} Consuming breakfast enhances daily intake of key vitamins and minerals, such as vitamins A and C, calcium, zinc, and iron, as well as dietary fiber.^{2,3,4} Children who consume breakfast more often are more likely to have healthful diets based on the Healthy Eating Index⁵ and those who miss breakfast are less likely to meet fruit and vegetable intake recommendations and more likely to consume unhealthy snacks.⁶

For children, breakfast is often a nutrient dense meal because it contributes a higher proportion of daily nutrients relative to calories. Based on data from National Health and Nutrition Examination Survey (NHANES) for children and adolescents aged 6 to 19 years, breakfast contributes from 15% to 18% of daily energy intake yet provides from 15% to almost 40% of daily intake for various vitamins and minerals, and dietary fiber.⁷

Breakfast has been associated with favorable weight status in children and adolescents. Higher frequency of breakfast consumption was associated with a reduced risk for overweight in middle and high school students.⁸ Adolescents aged 13 to 16 years who skipped breakfast more than 2 days per week had an increased likelihood of being overweight compared to those who consumed breakfast more often.⁹ Many lifestyle or other factors can contribute to overweight and obesity. Yet breakfast may be one important modifiable lifestyle habit that can help children and adolescents achieve and maintain a healthy weight.

Breakfast consumption has been associated with enhanced cognitive ability including memory, attention, and problem solving.^{10,2} Breakfast consumption has been reported to have beneficial effects on test scores¹¹ as well as academic performance and school attendance in students who improved their nutritional status by participating in a school breakfast program.¹²

Adults

Breakfast also is associated with a variety of health benefits in adults.¹³ An analysis of NHANES III data reports that adults who skip breakfast have the lowest mean daily intakes of all micronutrients except sodium compared to adults who eat breakfast.¹⁴ In a group of young adults, a higher percentage

of breakfast skippers did not meet two-thirds of the Recommended Dietary Allowance for 16 vitamins and minerals than those who consumed breakfast.¹⁵

Research suggests that adults who consume breakfast regularly are more likely to have a healthy weight. In a cross-sectional study of 500 adults, skipping breakfast was associated with a more than 4-fold increase in the prevalence of obesity.¹⁶ In an analysis of NHANES (1999-2000), breakfast consumers were less likely to be overweight compared to nonconsumers.¹⁷ In adults enrolled in the National Weight Loss Registry who had maintained at least a 30-pound weight loss for one year or more, over 78% indicated that they consume breakfast every day, suggesting that breakfast may be important for weight loss maintenance.¹⁸

Breakfast also may enhance some aspects of cognitive function in adults. Compared to fasting, consuming breakfast improved performance on a memory recall test,¹⁹ a memory task involving free recall and recognition,²⁰ a recognition memory and logical reasoning test,²¹ and a spatial memory test.²² Eating breakfast was also associated with better mood in adults.²²

Dietary Guidelines for Americans

Although the Dietary Guidelines for Americans include no specific recommendation for breakfast consumption, with careful and healthful food choices the breakfast eating occasion provides an opportunity to help meet nutrient, food, or food group recommendations as outlined in the Guidelines. Ready-to-eat cereals are a common breakfast item.¹ They can be a source of whole grains and have been associated with higher intakes of milk.²³ Consumption of 100% fruit juices, another common breakfast item, can contribute to fruit intake. The Guidelines list calcium, potassium, fiber, magnesium, and vitamin E as shortfall nutrients common to both children and adults.²⁴ Nutrient-rich breakfast foods such as whole grains, lower-fat dairy, lean protein, and fruits and vegetables are key food sources of these nutrients.

Summary

Children and adults benefit nutritionally from regular breakfast consumption. Breakfast consumption may play a favorable role in weight maintenance and may positively impact cognitive and academic abilities. Although many factors can contribute to nutrient intake, weight maintenance and cognitive function, breakfast has been singled out as an important and beneficial lifestyle factor that may help contribute to the overall health and well-being of children and adults.

References

1. Rampersaud GC, et al. *J Am Diet Assoc.* 2005;105:743-760.
2. Rampersaud GC. *Am J Lifestyle Med.* 2008;Nov 25:
3. Nicklas T, et al. *J Adolesc Health.* 2000;27:314-321.
4. Affenito S, et al. *J Am Diet Assoc.* 2005;105:938-945.
5. Basiotis P, et al. *Family Economics and Nutrition Review.* 1999;12:81-83.
6. Utter J, et al. *J Am Diet Assoc.* 2007;107:570-576.
7. USDA. www.ars.usda.gov/ba/bhnrc/fsrg. Accessed 12/5/07.
8. Haines J, et al. *Obesity.* 2007;15:2748-2760.
9. Croezen S, et al. *Eur J Clin Nutr.* 2007;1:8.
10. Taras H. *J Sch Health.* 2005;75:199-213.
11. Powell CA, et al. *Am J Clin Nutr.* 1998;68:873-879.
12. Kleinman RE, et al. *Ann Nutr Metab.* 2002;46 Suppl 1:24-30.
13. Timlin M, Pereira M. *Nutr Rev.* 2007;65:268-281.
14. Kerver JM, et al. *J Am Diet Assoc.* 2006;106:46-53.
15. Nicklas TA, et al. *J Am Diet Assoc.* 1998;98:1432-1438.
16. Ma Y, et al. *Am J Epidemiol.* 2003;158:85-92.
17. Song WO, et al. *J Am Diet Assoc.* 2005;105:1373-1382.
18. Wyatt HR, et al. *Obesity Res.* 2002;10:78-82.
19. Benton D, et al. *Am J Clin Nutr.* 1998;67:772S-778S.
20. Smith A, et al. *Appetite.* 1994;22:39-55.
21. Smith, AP, et al. *Neuropsychobiology.* 1992;26:198-204.
22. Smith, AP, et al. *Physiol Behav.* 1999;67:9-17.
23. Gibson S. *Public Health Nutr.* 2003;6:815-820.
24. USDHHS. www.health.gov/DietaryGuidelines. Accessed 12/4/08.

The Florida Breakfast Partnership was created to educate consumers about the importance of eating a healthy breakfast every day. This partnership is an alliance of the Florida Department of Citrus, Florida Department of Agriculture and Consumer Service, Dairy Council of Florida, Florida Poultry Federation and the Florida Pork Improvement Group. The Partnership conducts marketing outreach efforts to consumers, educators and health professionals to increase awareness of nutritious products produced in Florida that contribute to maintaining a healthy lifestyle. Agriculture provides a \$100 billion economic impact to the state. For more information about the Florida Breakfast Partnership contact Amy Carpenter at (863) 499-2500 or visit www.floridabreakfast.com.