

# clips on sugars

FOR UP-TO-DATE INFORMATION ON SUGARS IN HEALTHY EATING

## Breakfast Brain Booster

Carbohydrates (sugars, starches, and fibre) are the body's most important source of energy. Health Canada recommends that 45-65% of our total daily calories come from carbohydrates. Fruits, vegetables, grains, milk products, and sugars are all sources of carbohydrates. The body breaks down starches and sugars into smaller sugar components, called glucose. Glucose is the body's main source of energy, especially for the brain.

The brain needs a steady supply of glucose to concentrate, remember and learn. In fact, we need to eat at least 130 grams of carbohydrates a day for our brain to work properly<sup>1</sup>. This is most important for children as children's brains have very high energy needs. The brain of a four year old uses **twice as much** glucose as the brain of an adult! This makes children's intake of carbohydrate-rich foods especially important<sup>2</sup>.

### Eating breakfast helps fuel the brain

The energy stored from the carbohydrates in the day's meals gets used up overnight. By morning, blood glucose levels are at their lowest and need to be refilled. Eating breakfast helps replenish the body's energy stores. This means that children who skip breakfast have not given their brain and body the fuel they need for the day ahead. Skipping breakfast can have a negative effect on a child's mood and memory, especially by mid- to late-morning<sup>3</sup>. Breakfast truly is the most important meal of the day!

In fact, research<sup>3</sup> shows that eating breakfast improves children's:

- memory;
- alertness;
- mood and feelings of wellbeing;
- motivation to learn;
- test grades; and
- school attendance.



## What does a nutritious breakfast look like?

Studies show that eating carbohydrates for breakfast can improve a child's memory, test grades and ability to learn<sup>3</sup>. While carbohydrates are an important part of breakfast, a well-rounded balanced breakfast is best. Canada's Food Guide is made up of 4 food groups: 1) Vegetables and Fruit; 2) Grain Products; 3) Milk and Alternatives; and 4) Meat and Alternatives. Choosing foods from at least 3 of these 4 food groups at breakfast will give children a good balance of carbohydrates, fat, and protein, as well as essential vitamins and minerals. Fibre is also important and can help kids feel fuller for longer. Dietary fibre is found in foods like whole grain cereals and breads, and fruits and vegetables. While the best breakfast for school performance is not known, research shows that eating something for breakfast is better than going to school on an empty stomach<sup>3</sup>. Any breakfast is better than none at all!



### Skipping breakfast is an unhealthy habit, and teens do it more often!

In addition to helping kids do better in school, breakfast eaters are more likely to meet their nutrition recommendations. In fact, if essential nutrients are missed at breakfast, it is hard to make up for this loss at other meals during the day<sup>4</sup>.

Unfortunately, children tend to eat breakfast less often as they get older, and teenagers are the most likely to skip breakfast<sup>5</sup>.

According to Canadian research, about 25% of children in grade 4 do not eat breakfast every day. By the eighth grade about 40% of teens skip breakfast!<sup>6</sup> Be sure your child gets a good start by eating a nutritious breakfast every day.

### Breakfast Eaters Tend to be Healthier

People who eat breakfast tend to have better quality diets and healthier body weights compared to those who skip breakfast. Breakfast eaters also tend to be more physically active compared to non-breakfast eaters. Eating breakfast helps start your day off on the right track and often means you are less likely to overeat later in the day<sup>3</sup>.

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### Did You Know?

- Contrary to common belief, sugar (sucrose) in ready-to-eat breakfast cereals does not cause a spike in blood glucose levels<sup>8</sup>. In healthy people, the body keeps blood glucose levels within a narrow range. A gradual rise after eating, followed by a slow decline, is a normal part of the body's regulation of blood glucose.
- Sugars also do not cause hyperactivity or other behavioural problems in children. Several thorough scientific reviews have concluded that the sugar in foods is not linked to hyperactive behaviour in children or those with Attention Deficit Hyperactivity Disorder (ADHD)<sup>8</sup>. Researchers have suggested that occasional bouts of excess energy among healthy children may be linked to the excitement associated with special activities like parties and recess, and not to the sweets or other foods served at these events.

**Eating Well with Canada's Food Guide** recommends that children aged 4 to 13 years get 5 to 6 servings of fruits and vegetables, 4 to 6 servings of grain products, 2 to 4 servings of milk products, and 1 to 2 servings of meat and alternatives every day. Teenagers 14 to 18 years old should aim for 7 to 8 servings of fruits and vegetables, 6 to 7 servings of grains, 3 to 4 servings of milk products, and 2 to 3 servings of meat and alternatives each day. Distributing these servings over the course of the day helps the body maintain a steady supply of glucose to fuel physical and brain activities.

For more information on serving sizes, see [www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index-eng.php](http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index-eng.php)

### REFERENCES

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## GOOD MORNING IDEAS

What's for breakfast? Stretch your imagination! Go ahead – be creative, use up the leftovers, try something new. Breakfast can be an enjoyable way to start the day, whether your family is eating at the table or on the go:

- Yogurt with muesli and fruit
- Cereal with milk, and ½ cup of juice
- Egg on a whole wheat English muffin with a cup of chocolate milk
- Crackers, cheese and fruit
- Peanut butter and jam sandwich and a cup of milk
- Slice of leftover veggie pizza with ½ cup of juice
- Trail mix with nuts and dried fruit and a yogurt drink
- Muffin, fruit and a cup of soy beverage
- Small fruit and yogurt smoothie with a piece of whole grain toast



### All ready-to-eat cereals are fortified with similar amounts of vitamins and minerals



Ready-to-eat cereals are one of the most popular breakfast options. This is a good thing because cereal eaters tend to consume more vitamins and minerals than those who do not eat cereal<sup>7</sup>. Breakfast should provide about 25% of the day's calories, vitamins, and minerals. To ensure adequate nutrient intake, all ready-to-eat cereals are fortified with similar amounts of vitamins and minerals. In fact, there is little difference in vitamin and mineral content between pre-sweetened and unsweetened cereals. Depending on the types of grains used, breakfast cereals can also be a source of fibre, which most children do not get enough of. The 2004 Canadian Community Health Survey found that both children and teens had fibre intakes well below the recommended values.

Canada's Food Guide recommends that at least half of grain products eaten should be whole grain to help increase fibre intake. Look for whole grain cereals that say "a source of fibre" to get at least 2 grams of fibre per serving. Even better, choose cereals that are a "high source of fibre" – these have 4 grams of fibre or more per serving.

Naturally, children want to eat foods that taste good. And just as naturally, parents want their children to eat nutritious foods that will help them grow up healthy and provide the energy they need for school and play. Given that breakfast is so important to start your child's day, choosing a cereal that appeals to their palate and encouraging variety in their choices may be the best solution. Eating breakfast should be a pleasure rather than a chore.

## The Bottom Line

**With the choice of several nutritious and delicious foods to start their day, children should be encouraged to enjoy a variety of foods every-day to develop good nutrition habits. Good nutrition is important for long-term health and success at school.**

This fact sheet, developed with the collaboration of Registered Dietitians and Nutrition Researchers, is published by the Canadian Sugar Institute. If you have any questions about sugar and its relation to nutrition and health, feel free to contact:

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