

# clips on sugar

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

## Balancing Food and Activity for Healthy Weights

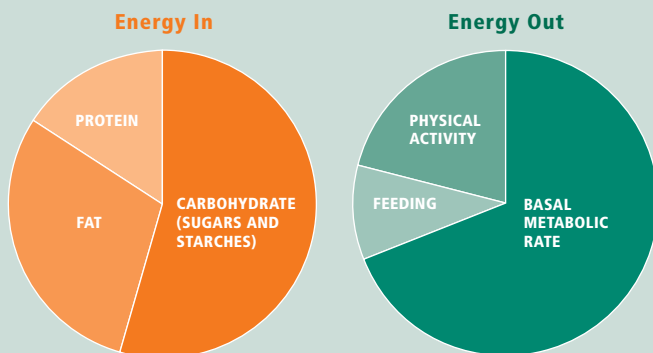
### Healthy weight is about balancing 'Energy In' with 'Energy Out'

Maintaining a healthy body weight requires energy balance. That is, the amount of energy ingested ("Energy In") should equal the amount expended ("Energy Out").

"Energy In" is the energy (calories) we get from nutrients in food (carbohydrate, fat, protein, and alcohol). "Energy Out" is the energy needed to perform basic body functions like breathing and keeping the heart beating (basal metabolic rate), digesting and processing food, and to fuel voluntary activities like walking, talking, or playing basketball. In children, more food energy is needed for growth and development.

For young Canadians, physical activity encourages optimal growth and development and can help build positive self-esteem. For older Canadians, physical activity can help sustain independent living and improve quality of life.

Physical activity also has economic and environmental benefits, including reduced health care costs and increased productivity from reduced employee absenteeism (injury and sick days), as well as reducing air pollution and traffic congestion.



### ACTIVE LIVING TIPS

- Try shorter, more frequent sessions. Add up your activities during the day in periods of at least 10 minutes each. Start slowly... and build up!
- Bring a friend along – ask a friend to join you in the activity.
- Look for community activities near where you live.
- Make use of everyday opportunities such as taking the stairs.

### Too much 'In' and not enough 'Out' can lead to obesity

Weight gain results when "Energy In" from all foods and beverages is greater than "Energy Out" from physical activity and other body functions. This is known as positive energy balance. Obesity rates have increased in adults and children worldwide. In Canada, well over half of adults and more than one quarter of children aged 2 to 11 are classified as overweight or obese. These conditions of excess body fat are associated with health problems, including heart attacks, stroke, diabetes, and cancer.

To lose weight, a decrease in energy intake from food and/or an increase in energy output is required. The amount of energy used for basic body functions depends largely on genetic factors like age, gender, and body size so it is hard to change. But, we can modify food intake and physical activity.

### Benefits of physical activity – it will do your body good!

Participating in regular physical activity can help manage body weight and reduce the risk of developing diseases like heart disease and diabetes. Physical activity also improves sleep and can reduce stress, anxiety and depression.

### How much physical activity is needed?

For optimal growth and development in children, *Canada's Physical Activity Guides for Children and Youth* recommend at least 90 minutes of daily activity including 30 minutes of vigorous activities such as running or soccer. For adults, 30-60 minutes of activity each day of the week is recommended, with the length of time dependent on the intensity of the exercise. These activities should help build strength, endurance and flexibility and can be accumulated throughout the day.

Type of exercise	Time needed depends on effort	Examples
Light effort	60 minutes of activity that increases breathing rate	Light walking, gardening, stretching, vacuuming, etc.
Moderate effort	30–60 minutes of activity that stimulates a greater increase in breathing rate	Brisk walking, biking, swimming, dancing, etc.
Vigorous effort	20–30 minutes of activity that results in being more out of breath	Aerobics, jogging, basketball, fast dancing, etc.



Health Canada’s approach to active living stresses that physical activity is not just about exercise programs and sports. It is important to do activities that feel good and are moderate and fun. The goal isn’t just to burn calories, but to enjoy the feeling of movement and to make it part of everyday life, whether it’s gardening or taking the dog for a walk or the kids to fly a kite. Active living encourages everyone, not just people who are young and fit, to get up and moving!

**How active are Canadians?**

Health Canada’s surveys indicate that almost half of Canadians 12 years and older are not active enough to achieve optimal health benefits, which requires about 30 minutes of running (or one hour of team sports), combined with an hour of walking throughout the day. There is a trend towards lower levels of activity with increasing age, men are slightly more active than women, and trends vary by province, with the highest proportion of active people in British Columbia.

**Carbohydrates – the premium fuel for activity**

Canadians should follow *Eating Well with Canada’s Food Guide*, which recommends a variety of foods from all four food groups. The Guide recommends how many Food Guide servings Canadians should try to eat each day, based on age and gender.

Health Canada recommends that 45-65% of calories should come from carbohydrates, which are eaten in the form of starches (cereal, bread, pasta, rice, etc.) and sugars (fruit, vegetables, milk, sugar, honey, etc). Regardless of the source, starches and sugars are digested and changed into the sugar glucose, which our bodies use for energy. Extra glucose is stored as glycogen in muscles and liver. When we exercise, our body uses energy from carbohydrates (from the blood, muscles and liver) and fats, which provide fuel for the muscles. The duration and intensity of exercise determines which fuel will be used as the primary source.

During low intensity exercise, the body gets most of its energy from fats. As the intensity increases, so does the percentage of energy from carbohydrate. Glucose from muscles provides the primary source of energy, with smaller amounts from glucose stored in the liver. For most people, glycogen stores are enough to keep us going during exercise. But for activities lasting longer than an hour, glycogen stores might be used up. If blood glucose levels cannot be maintained because of insufficient carbohydrate stores, muscles will tire and the intensity of the exercise will decrease.

**WHAT TO EAT BEFORE, DURING AND AFTER ACTIVITY**

**BEFORE:** Eat a medium sized, high carbohydrate meal that is low in fibre and fat, and moderate in protein, one to four hours before activity. Drink plenty of water.

**DURING:** If an activity lasts more than one hour, eat carbohydrate-rich snacks every hour, such as sports drinks, juice or energy bars. For activities lasting less than an hour, water is generally sufficient.

**AFTER:** For a few hours after an activity, choose foods and beverages high in carbohydrates, particularly if the activity was strenuous or lasted a long time.



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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