

# clips on sugars

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”

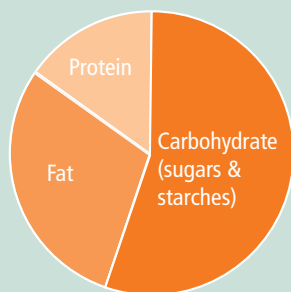
“Energy In” is the energy (calories) you get from eating and drinking. Calories come from carbohydrate, fat, protein, and alcohol. “Energy Out” is the energy you use for basic body functions and physical activity. Basic body functions include breathing and keeping the heart beating (basal metabolic rate) as well as digesting and processing food (eating). The “energy out” you can control is physical activity like walking, hiking, or playing basketball. In children, more food energy is needed for growth and development. Additional energy is also required during pregnancy and lactation.

Maintaining a healthy body weight requires energy balance. The amount of energy you eat and drink (“Energy In”) should equal the amount of energy you use (“Energy Out”).

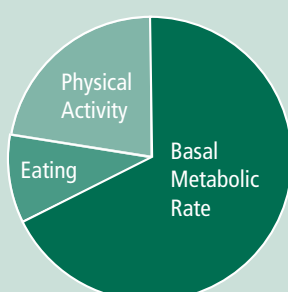
self-esteem. For older Canadians, physical activity can help sustain independent living and improve quality of life.

Physical activity also has economic and environmental benefits, including reduced health care costs and increased productivity from reduced employee sick days, as well as reducing air pollution and traffic congestion by walking or riding a bike instead of driving.

### Energy In



### Energy Out



### ACTIVE LIVING TIPS

- Try shorter, more frequent sessions of activity. Add up your activities during the day in periods of at least 10 minutes each. Start slowly...and build up!
- Ask a friend to join you in the activity.
- Look for activities nearby in your community.
- Make use of everyday opportunities such as taking the stairs. Avoid sitting for long periods!

### Too much ‘In’ and not enough ‘Out’ can lead to weight gain

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 and youth aged 2 to 17 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 foods and beverages 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. However, 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 several chronic diseases like heart disease, hypertension, osteoporosis, cancer and diabetes. Physical activity also improves sleep and can reduce stress, anxiety and depression. For young Canadians, physical activity encourages optimal growth and development and can help build positive

### How much physical activity is needed?

For optimal growth and development in children, *Canada’s Physical Activity Guide for Children and Youth* recommends at least 90 minutes of daily activity including 30 minutes of vigorous activities such as running or soccer. For adults, accumulating 60 minutes of light activity every day is recommended. With more intense activity, less time is needed. Your activities should help build strength, endurance and flexibility. Activity sessions don’t have to be all at once but each session should be at least 10 minutes long!



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Type of exercise	Time needed daily for adults	Examples
Light effort	60 minutes of activity that increases breathing rate	Light walking, gardening, stretching, vacuuming
Moderate effort	30-60 minutes of activity that stimulates a greater increase in breathing rate	Brisk walking, biking, swimming, dancing, raking leaves, water aerobics
Vigorous effort	20-30 minutes of activity that results in being more out of breath	Aerobics, jogging, basketball, fast dancing



Adapted from Canada's Physical Activity Guide to Healthy Active Living

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 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, taking the dog for a walk or flying a kite with the kids, any activity counts. Active living encourages everyone, not just people who are young and fit, to get up and move!

### How active are Canadians?

The Canadian Community Health Survey (2009) showed that almost half of Canadians 12 years and older are not active enough to achieve optimal health benefits. Statistics Canada (2009) report lower levels of activity with increasing age. Also, men tend to be slightly more active than women and activity levels vary by province.

### Carbohydrates – the premium fuel for activity

Canadians should follow Canada's Food Guide, which recommends a variety of foods from all four food groups. The Food Guide describes what amount of food people need and what type of food is part of a healthy eating pattern. The recommended number of servings is different for people of different ages and is different for males and females.

Health Canada recommends that 45-65% of calories 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 in muscles and liver. When we exercise, our body uses energy from food we have recently eaten as well as from stored glucose and fat, which provide fuel for the muscles.

The duration and intensity of exercise determines which fuel will be used as the primary energy source. During low intensity

exercise such as walking, the body gets most of its energy from fats. As the intensity increases, so does the percentage of energy provided from carbohydrate. Stored glucose from muscles provides the primary source of energy, with smaller amounts coming from the liver. For most people, glucose stores are enough to keep us going during exercise, but for activities lasting longer than an hour, these stores might be used up. If the glucose stores are used up, muscles will tire and the intensity of the exercise will decrease. Eating carbohydrate-rich foods or beverages will help to avoid this by providing fuel for your body and will build and replenish glucose stores.

### 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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