

Review

- What are the six main nutrients?
 - What makes a food “healthy”?
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NUTRITION



Why do we eat food?

To gain energy!



Energy Needs

- We need energy to stay alive and carry out our daily activities:
 - *Maintain body temperature*
 - *Sustain breathing rate*
 - *Sustain heart rate*

**Does everyone have the
same energy requirements?**

Energy Requirements

- Since we are constantly using energy to sustain our daily activities, we need to replace it
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Energy Requirements

- Where does most of energy come from?
 - Carbohydrates and fats are the body's major sources of energy
 - Proteins are sometimes used when there aren't enough carbs or fats
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Energy Requirements

- An individual's energy requirements will depend on a variety of factors:
 - Age
 - Sex
 - Weight
 - Level of physical activity
 - State of health
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Average Energy Requirements

- **Adolescent boy**

- Between 2200 and 3200 Cal
(8800 - 12 800 kJ)

- **Adolescent girl**

- Between 1800 and 2400 Cal
~~(7200-9600 kJ)~~

**How do you know if you're
getting the right amount
of energy?**

Food Labels!



Nutrition Labels

- Since December 12, 2005 Nutrition Facts labels have been mandatory on most pre-packaged foods in Canada
 - Each label contains the following information:
 - Serving size
 - Amount of energy in calories
 - Nutrient content
 - Percentage of the recommended daily intake (RDI) for each nutrient
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Apple Cinnamon Cheerios

• How many Calories are in one serving?

• 120 Calories

• How many grams of fat are in one serving?

• 1.5 g

• How many grams of protein are in one serving?

• 2 g

• How many grams of carbohydrates are in one serving?

• 25g

Nutrition Facts

Serving Size: 3/4 cup (30g)

Amount Per Serving

Calories 120 **Calories from Fat** 14

% Daily Value*

Total Fat 1.5 g **2%**

Saturated Fat 0 g **0%**

Trans Fat 0 g

Cholesterol 0 mg **0%**

Sodium 120 mg **5%**

Potassium 60 mg **2%**

Total Carbohydrate 25 g **8%**

Dietary Fiber 1.2 g **5%**

Sugars 13 g

Sugar Alcohols

Protein 2 g

Vitamin A 500.1 IU 10%

Vitamin C 6 mg 10%

Calcium 99.9 mg 10%

Iron 4.5 mg 25%

How much should you have of each nutrient?

- *Carbohydrates*
 - *For a teenager, it is recommended that 45-65% of the calories in your diet comes from carbohydrates; this is about 260g of carbohydrates per day*



- **Proteins**

- *For a teenager, it is recommended that 10-30% of the calories in your diet comes from proteins; this is about 100g of protein per day*



- **Fats**



- *For a teenager, it is recommended that 25-35% of the calories in your diet comes from fat; this is about 110g of lipids per day*
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Calculating Energy Content

Nutrient	Calories per Gram
Carbohydrate	4
Protein	4
Fat	9
Alcohol	7

Nutrient	kJ per gram
Carbohydrates	17
Protein	17
Fat	37
Alcohol	29

Canada's Food Guide

- A government document designed to assist Canadians in making a more informed decision on food choices and combinations.
- According to the food guide, there are three food groups:

1) Whole Grains (1/4 of your plate)

2) Fruits/Vegetables (1/2 of your plate)

3) Protein rich foods (1/4 of your plate)

**Have plenty of
vegetables and fruits**

Eat protein foods

**Make water
your drink
of choice**

**Choose
whole grain
foods**



Healthy foods is more than the foods you eat

- Be mindful of your eating habits
 - Cook more often
 - Enjoy your food
 - Eat meals with others
 - Use food labels
 - Limit foods high in sodium, sugars and saturated fats
 - Be aware of food marketing
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DIETS





What is a healthy diet?

What does it mean to “eat healthy”?

Recommended Number of Food Guide Servings per Day

Age in Years	Children			Teens		Adults			
	2-3	4-8	9-13	14-18		19-50		51+	
Sex	Girls and Boys			Females	Males	Females	Males	Females	Males
Vegetables and Fruit	4	5	6	7	8	7-8	8-10	7	7
Grain Products	3	4	6	6	7	6-7	8	6	7
Milk and Alternatives	2	2	3-4	3-4	3-4	2	2	3	3
Meat and Alternatives	1	1	1-2	2	3	2	3	2	3

The chart above shows how many Food Guide Servings you need from each of the four food groups every day.

Having the amount and type of food recommended and following the tips in *Canada's Food Guide* will help:

- Meet your needs for vitamins, minerals and other nutrients.
- Reduce your risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
- Contribute to your overall health and vitality.

**Have plenty of
vegetables and fruits**

Eat protein foods

**Make water
your drink
of choice**

**Choose
whole grain**



200 Calories?

Paleo Diet

	Fat	Carbs	Proteins
• Breakfast:			
• 2 eggs	14 g	2 g	12 g
• 1 cup grapes	0.3 g	16 g	0.6 g
• Lunch			
• Lettuce (2 cups)			1 g
• Olive oil (1 tsp)			0.6 g
• Roasted cauliflower	0.4 g	6 g	3 g
• Dinner			
• Grilled sirloin steak	14 g	0 g	27 g
• Baked asparagus	0.2 g	4.1 g	2.4 g
Total	43.3 g	35.1 g	46.6 g

Healthy?

Grapefruit Diet

Fat **Carbs** **Proteins**

- **Breakfast:**

- 1/2 grapefruit
- 2 slices bacon
- 2 boiled eggs

0.2 g 13 g 0.9 g

6.6 g 0.2 g 6 g

26 g

- **Lunch**

- Lettuce (1 cup)
- Olive oil and lemon dressing
- 1/2 grapefruit
- 8 oz chicken

Healthy?

1 g

0.6 g

38 g

- **Dinner**

- Lettuce (3 cups)
- Olive oil and lemon dressing
- 1/2 grapefruit
- 8 oz chicken

0.6 g 6 g 3 g

14.2 g 5 g 0.6 g

0.2 g 13 g 0.9 g

19 g 0 g 38 g

Total 96.2 g 46.4 g 115 g

Keto diet (high fat; low carb)

Breakfast:

3 inch square, [Sausage & Spinach Frittata](#) (206 calories, 16g fat, 1g net carbs, 12g protein)

Coffee with 2 Tbsp Heavy Cream (120 calories, 12g fat, 1g net carbs, 0g protein)

Snack

1/2 hass avocado w/ lite salt and pepper (114 calories, 11g fat, 1 g net carbs, 1g protein)

Keto diet (high fat; low carb)

Lunch

1/2 cup [Simple Egg Salad](#) (166 calories, 14g fat, 1g net carbs, 10g protein)

4 Romaine Lettuce Leaves (4 calories, 0g fat, 0g net carbs, 0g protein)

2 slices cooked bacon (92 calories, 7g fat, 0g net carbs, 6g protein)

Snack

24 raw almonds (166 calories, 15g fat, 2g net carbs, 6g protein)

Keto diet (high fat; low carb)

Dinner

6 oz rotisserie chicken (276 calories, 11g fat, 0g net carbs, 42g protein)

3/4 cup [Easy Cauliflower Gratin](#) (215 calories, 10g fat, 2g net carbs, 6g protein)

2 cups chopped romaine (10g net carbs, 1g protein)

2 Tbsp Caesar Salad Dressing (10g net carbs, 1g protein)

Dessert

2 squares [Lindt 90% Chocolate](#) (105 calories, 9g fat, 3g net carbs, 3g protein)

Healthy?

Totals: 1650 calories, 132g fat, 14g net carbs, 88g protein



Diet or Exercise?

Which is more important?
