

## Calculating Percentage Fat and Sugar Content by Weight using Food Labels

Health Canada has a program called Nutrition Facts that highlights nutrition information on food labels. The following information and example will help you to figure out fat and sugar content and determine if a food or beverage meets *Healthy Choices*.

Information basic to Nutrition Facts:

- Calories listed on label are based on a specified quantity of food or beverage, in either milliliters (mL) or grams (g)
- Total fat content = saturated fat + trans-saturated (trans) + poly-unsaturated + mono-unsaturated fats
- Poly-unsaturated and mono-unsaturated fats are not listed on the label separately. These need to be figured out through a simple subtraction
- All fats = 9 calories per gram
- Carbohydrates = 4 calories per gram
- Carbohydrates includes all sources of sugar, specifically:
  - Natural sugars (fructose and glucose found in fruits, found in vegetables, maltose and glucose found in grains, lactose found in dairy products, etc.)
  - Added sugars (seen on the ingredient list as sucrose, glucose, fructose, dextrose, invert sugar, corn syrup, malt sugar etc.)
  - Fiber

Example: Nut and Seed Bar

Ingredients: toasted hemp seeds, honey, sunflower seeds, black currents, organic puffed rice, almonds, cranberries, pumpkin seeds, milled flax powder and molasses

Nutrition Facts:

- 157 calories
- 9.5g total fat
- 8.1 g of poly and mono unsaturated fats
- 1.1 g of saturated fat and 0.3 g of trans-saturated fat

<b>Nutrition Facts</b>	
Per 1 bar (45 g)	
<b>Amount</b>	<b>% Daily Value</b>
<b>Calories 157</b>	
<b>Fat 9.5 g</b>	<b>16%</b>
Saturated 1.1g + Trans 0.3g	<b>23%</b>
<b>Cholesterol 0 mg</b>	
<b>Sodium 5 mg</b>	<b>1%</b>
<b>Carbohydrate 15.8g</b>	
Fibre 2.7 g	<b>8%</b>
Sugars 13.1g	
<b>Protein 5.3g</b>	
Vitamin A	2% Vitamin C 4%
Calcium	7% Iron 10%

## Calculate Percentage Total Fat of Nut and Seed Bar

A calculator as well as the list of guidelines and recommendations is an asset for figuring out if a food or beverage is recommended.

### *Step 1: Calculate Total Fat Content*

Take number of fat grams / bar and multiply by 9 calories / gram:

$$9.5 \text{ grams / bar} \times 9 \text{ calories / gram} = 85.5 \text{ calories fat / bar}$$

Total Fat Content = 85.9 calories / Nut and Seed Bar

### *Step 2: Calculate Percentage Total Fat*

Take the Total Fat Content and divide by the total calories listed:

$$\frac{85.5 \text{ calories from fat}}{157 \text{ total calories}} \times 100 = 54.5 \% \text{ Total Fat}$$

ASSESSMENT of percent total fat in comparison to *Healthy Choices*:

*Healthy Choices* Guidelines recommends a product have no more than 30% calories from total fat. This product does not meet the guidelines for total fat; since the majority of calories are from poly- and mono-unsaturated fats (healthy types of fats) it may still meet guidelines. Next step is to check the percentage of saturated plus trans fats.

### *Step 3: Calculate Percentage Saturated Plus Trans Fat Calories*

Add the grams of saturated fat PLUS trans fat to give you the total of these “unhealthy fats” and MULTIPLY by 9 fat calories / gram

$$(1.1\text{g} + 0.3\text{g}) = 1.4 \text{ grams / bar} \times 9 \text{ calories / gram} = 12.6 \text{ saturated + trans fat calories/bar}$$

To determine the percentage saturated and trans fat calories DIVIDE these by the total calories, then MULTIPLY by 100.

$$\frac{12.6 \text{ calories (sat + trans fat)}}{157 \text{ total calories}} \times 100 = 8 \% \text{ sat + trans fat ca 157 total calories}$$

ASSESSMENT of percent saturated plus trans fat calories in comparison to *Healthy Choices*:

*Healthy Choices* guidelines recommends that a product can have >30% total fat if saturated plus trans fat is <10%. This product is **RECOMMENDED** given the bar is a source of “healthy fats”.

## Calculate Percentage Sugar by Weight of Nut and Seed Bar

Step 1: Determine percentage sugar by weight by:

Divide the total number of grams of carbohydrate by the total weight (grams) of the item then multiply by 100.

$$\frac{13.1 \text{ grams carbohydrates} \times 100}{45 \text{ grams (total bar weight)}} = 29.1\% \text{ sugar by weight}$$

ASSESSMENT of percentage of sugar by weight according to *Healthy Choices* guidelines:

This product meets the guidelines for sugars as <35% of the product's total weight comes from sugar(s). If it were over 35%, check the ingredients list for sources of sugar (see Determining Sugar Source), added or naturally occurring to see if product would still be recommended.

FINAL RECOMMENDATION for both fat and sugar content according to *Healthy Choices*:

According to calculations this product is **RECOMMENDED**.

**Contact your local community nutritionist for assistance if needed.**